

Unit Four

Multiplication

Topic A: Introduction and Multiplication Facts

Multiplication is a fast way to add. Multiplication is used when the amounts to be added are the same.


$$\begin{array}{ccccccccccc} \blacklozenge & \blacklozenge & \blacklozenge & & \blacklozenge & \blacklozenge & \blacklozenge & & \blacklozenge & \blacklozenge & \blacklozenge & & \blacklozenge & \blacklozenge & \blacklozenge & & \blacklozenge & \blacklozenge & \blacklozenge & & \blacklozenge & \blacklozenge & \blacklozenge & & \blacklozenge & \blacklozenge & \blacklozenge & & \blacklozenge & \blacklozenge & \blacklozenge & & \blacklozenge & \blacklozenge & \blacklozenge \\ 3 & + & 3 & + & 3 & + & 3 & + & 3 & + & 3 & + & 3 & + & 3 & + & 3 & + & 3 & + & 3 & = & 21 \end{array}$$

How many groups are there? **7**

$$7 \text{ groups of } 3 = 21$$

This can be written as a multiplication equation.

$$7 \times 3 = 21$$

\times is the sign that means to multiply. We often say “times” for this multiplication sign.


$$\begin{array}{ccccccc} \text{⚙} & \text{⚙} & & \text{⚙} & \text{⚙} & & \text{⚙} & \text{⚙} & & \text{⚙} & \text{⚙} \\ 2 & + & 2 & + & 2 & + & 2 & = & 8 \end{array}$$

$$4 \text{ groups of } 2 = 8$$

$$4 \times 2 = 8 \quad \text{say “4 times 2 equals 8” or “4 multiplied by 2 equals 8”}$$

The result of a multiplication is called the **product**.



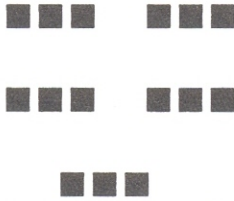



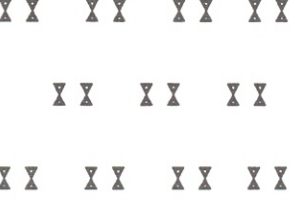
The numbers that are multiplied together are called **factors**.

$$7 \times 3 = 21 \text{ The } \mathbf{factors} \text{ are 7 and 3.}$$

The **product** is 21.

Exercise One

For each drawing, write the addition equation and find the total. Then write the multiplication equation that describes the same drawing and find the product. Check your work using the answer key at the end of the exercise.

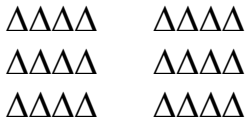
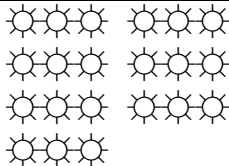


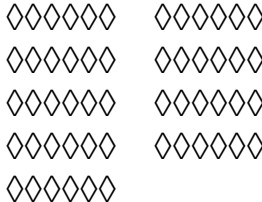
	Drawing	Addition Equation	Multiplication Equation
a)		$4 + 4 + 4 = 12$	$3 \times 4 = 12$
b)			
c)			
d)			
e)			
f)			
g)			


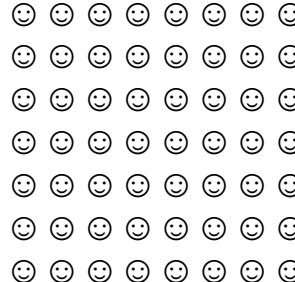
Answers to Exercise One

- | | |
|---|--------------------|
| a) $4 + 4 + 4 = 12$ | $3 \times 4 = 12$ |
| b) $6 + 6 = 12$ | $2 \times 6 = 12$ |
| c) $3 + 3 + 3 + 3 + 3 = 15$ | $5 \times 3 = 15$ |
| d) $5 + 5 + 5 + 5 = 20$ | $4 \times 5 = 20$ |
| e) $8 + 8 + 8 + 8 = 32$ | $4 \times 8 = 32$ |
| f) $3 + 3 + 3 = 9$ | $3 \times 3 = 9$ |
| g) $2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 22$ | $11 \times 2 = 22$ |

Exercise Two

For each drawing, write the addition equation and find the total. Then write the multiplication equation that describes the same drawing and find the product. Check your work using the answer key at the end of the exercise.

	Drawing	Addition Equation	Multiplication Equation
a)			
b)			
c)			
d)			
e)			

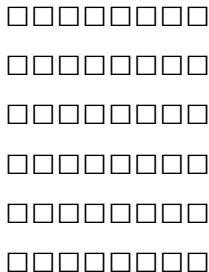
f)			
g)			




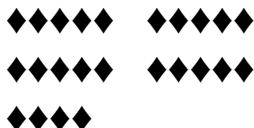

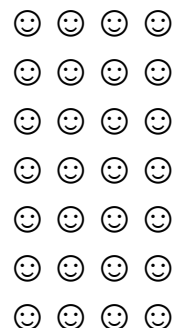
Answers to Exercise Two

- | | | |
|----|--|-------------------|
| a) | $4 + 4 + 4 + 4 + 4 + 4 = 24$ | $6 \times 4 = 24$ |
| b) | $3 + 3 + 3 + 3 + 3 + 3 + 3 = 21$ | $3 \times 7 = 21$ |
| c) | $5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = 40$ | $5 \times 8 = 40$ |
| d) | $7 + 7 + 7 + 7 + 7 = 35$ | $7 \times 5 = 35$ |
| e) | $6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 + 6 = 54$ | $6 \times 9 = 54$ |
| f) | $3 + 3 + 3 + 3 + 3 = 15$ | $3 \times 5 = 15$ |
| g) | $8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 = 56$ | $8 \times 7 = 56$ |

Exercise Three

For each drawing, write the addition equation and find the total. Then write the multiplication equation that describes the same drawing and find the product. Check your work using the answer key at the end of the exercise.

	Drawing	Addition Equation	Multiplication Equation
a)			

b)			
c)			
d)			
e)			
f)			
g)			

Answers to Exercise Three

- | | | |
|----|--|--------------------|
| a) | $8 + 8 + 8 + 8 + 8 + 8 = 48$ | $6 \times 8 = 48$ |
| b) | $5 + 5 + 5 + 5 + 5 + 5 + 5 = 35$ | $7 \times 5 = 35$ |
| c) | $2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 16$ | $8 \times 2 = 16$ |
| d) | $6 + 6 + 6 = 18$ | $3 \times 6 = 18$ |
| e) | $5 + 5 + 5 + 5 + 5 = 25$ | $5 \times 5 = 25$ |
| f) | $3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 30$ | $10 \times 3 = 30$ |
| g) | $4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 28$ | $7 \times 4 = 28$ |

Exercise Four

Look at the examples. Complete the chart. Check your work using the answer key at the end of the exercise.

Example A: 2×3 is read as “two times three” and means $3 + 3$

3×2 is read as “three times two” and means $2 + 2 + 2$

	“is read as”	means
5×7	five times seven	$7 + 7 + 7 + 7 + 7$
2×5		
3×4		
5×2		
4×8		
2×7		
3×5		
2×8		
3×9		
6×4		
7×3		

Answers to Exercise Four

	“is read as”	means
5 x 7	five times seven	7 + 7 + 7 + 7 + 7
2 x 5	two times five	5 + 5
3 x 4	three times four	4 + 4 + 4
5 x 2	five times two	2 + 2 + 2 + 2 + 2
4 x 8	four times eight	8 + 8 + 8 + 8
2 x 7	two times seven	7 + 7
3 x 5	three times five	5 + 5 + 5
2 x 8	two times eight	8 + 8
3 x 9	three times nine	9 + 9 + 9
6 x 4	six times four	4 + 4 + 4 + 4 + 4 + 4
7 x 3	seven times three	3 + 3 + 3 + 3 + 3 + 3 + 3



Adding will give the answer to multiplication questions but it is very slow, especially if the numbers are large. The **times tables** are the multiplication facts. You may need to memorize the times tables. You will use the times tables for multiplying, dividing, and working with fractions.

$$0 \times \text{any number} = 0$$

$$\text{any number} \times 0 = 0$$

$0 \times 0 = 0$	$0 \times 0 = 0$
$0 \times 1 = 0$	$1 \times 0 = 0$
$0 \times 2 = 0$	$2 \times 0 = 0$
$0 \times 3 = 0$	$3 \times 0 = 0$
$0 \times 4 = 0$	$4 \times 0 = 0$
$0 \times 5 = 0$	$5 \times 0 = 0$
$0 \times 6 = 0$	$6 \times 0 = 0$
$0 \times 7 = 0$	$7 \times 0 = 0$
$0 \times 8 = 0$	$8 \times 0 = 0$
$0 \times 9 = 0$	$9 \times 0 = 0$
$0 \times 10 = 0$	$10 \times 0 = 0$

$1 \times \text{any number} = \text{that number}$

$1 \times 0 = 0$

$1 \times 1 = 1$

$1 \times 2 = 2$

$1 \times 3 = 3$

$1 \times 4 = 4$

$1 \times 5 = 5$

$1 \times 6 = 6$

$1 \times 7 = 7$

$1 \times 8 = 8$

$1 \times 9 = 9$

$1 \times 10 = 10$

$0 + 0 = 0$	$2 \times 0 = 0$
$1 + 1 = 2$	$2 \times 1 = 2$
$2 + 2 = 4$	$2 \times 2 = 4$
$3 + 3 = 6$	$2 \times 3 = 6$
$4 + 4 = 8$	$2 \times 4 = 8$
$5 + 5 = 10$	$2 \times 5 = 10$
$6 + 6 = 12$	$2 \times 6 = 12$
$7 + 7 = 14$	$2 \times 7 = 14$
$8 + 8 = 16$	$2 \times 8 = 16$
$9 + 9 = 18$	$2 \times 9 = 19$
$10 + 10 = 20$	$2 \times 10 = 20$

Can you see a pattern? If you forget a multiplication fact with 2, you can just add.

Example: $2 \times 4 = 4 + 4 = 8$

$$2 \times 7 = 7 + 7 = 14$$

The three times table is special. The digits of each product adds up to 3, 6 or 9. You will know your answer is right if you add the digits of the product (the answer for a multiplication question) and the answer is 3, 6 or 9.

$3 \times 0 = 0$	
$3 \times 1 = 3$	3
$3 \times 2 = 6$	6
$3 \times 3 = 9$	9
$3 \times 4 = 12$	$12 \gg 1 + 2 = 3$
$3 \times 5 = 15$	$15 \gg 1 + 5 = 6$
$3 \times 6 = 18$	$18 \gg 1 + 8 = 9$
$3 \times 7 = 21$	$21 \gg 2 + 1 = 3$
$3 \times 8 = 24$	$24 \gg 2 + 4 = 6$
$3 \times 9 = 27$	$27 \gg 2 + 7 = 9$
$3 \times 10 = 30$	$30 \gg 3 + 0 = 3$

Exercise Five

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the zero to three times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

a)
$$\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 1 \\ \times 4 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 0 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e)} \quad 1 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{f)} \quad 2 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{g)} \quad 0 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{h)} \quad 3 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{i)} \quad 0 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{j)} \quad 1 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{k)} \quad 3 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{l)} \quad 2 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{m)} \quad 3 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{n)} \quad 0 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{o)} \quad 2 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{p)} \quad 1 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{q)} \quad 1 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{r)} \quad 2 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{s)} \quad 0 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{t)} \quad 3 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{u)} \quad 3 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{v)} \quad 1 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} \text{w)} \quad 2 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{x)} \quad 0 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{y)} \quad 2 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{z)} \quad 0 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{aa)} \quad 3 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} \text{bb)} \quad 1 \\ \times 2 \\ \hline \end{array}$$

Answers to Exercise Five

a) 4	b) 9	c) 4	d) 0	e) 7	f) 6	g) 0
h) 3	i) 0	j) 8	k) 12	l) 10	m) 15	n) 0
o) 8	p) 9	q) 1	r) 2	s) 0	t) 6	u) 27
v) 10	w) 16	x) 0	y) 18	z) 0	aa) 30	bb) 2

Exercise Six

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the zero to three times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

a)
$$\begin{array}{r} 0 \\ \times 9 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 1 \\ \times 0 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 3 \\ \times 0 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 0 \\ \times 2 \\ \hline \end{array}$$

g)
$$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$$

h)
$$\begin{array}{r} 1 \\ \times 3 \\ \hline \end{array}$$

i)
$$\begin{array}{r} 2 \\ \times 10 \\ \hline \end{array}$$

j)
$$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$$

k)
$$\begin{array}{r} 1 \\ \times 5 \\ \hline \end{array}$$

l)
$$\begin{array}{r} 0 \\ \times 6 \\ \hline \end{array}$$

m)
$$\begin{array}{r} 0 \\ \times 10 \\ \hline \end{array}$$

n)
$$\begin{array}{r} 1 \\ \times 6 \\ \hline \end{array}$$

o)
$$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$$

p)
$$\begin{array}{r} 2 \\ \times 0 \\ \hline \end{array}$$

q)
$$\begin{array}{r} 1 \\ \times 6 \\ \hline \end{array}$$

r)
$$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$$

s)
$$\begin{array}{r} 0 \\ \times 1 \\ \hline \end{array}$$

t)
$$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$$

u)
$$\begin{array}{r} 0 \\ \times 10 \\ \hline \end{array}$$

v)
$$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$$

w)
$$\begin{array}{r} 3 \\ \times 10 \\ \hline \end{array}$$

x)
$$\begin{array}{r} 1 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} y) \quad 2 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} z) \quad 0 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} aa) \quad 1 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} bb) \quad 3 \\ \times 8 \\ \hline \end{array}$$

Answers to Exercise Six

a) 0	b) 18	c) 0	d) 12	e) 0	f) 0	g) 14
h) 3	i) 20	j) 21	k) 5	l) 0	m) 0	n) 6
o) 24	p) 0	q) 6	r) 18	s) 0	t) 21	u) 0
v) 8	w) 30	x) 0	y) 0	z) 0	aa) 10	bb) 24

Exercise Seven

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product (the **answer** for a multiplication question). This exercise includes the zero to three times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

$$\begin{array}{r} a) \quad 1 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} b) \quad 3 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} c) \quad 2 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} d) \quad 0 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} e) \quad 3 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} f) \quad 1 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} g) \quad 0 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} h) \quad 2 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} i) \quad 1 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} j) \quad 2 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} k) \quad 3 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} l) \quad 0 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{m)} \quad 2 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{n)} \quad 1 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{o)} \quad 0 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{p)} \quad 3 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{q)} \quad 0 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{r)} \quad 3 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{s)} \quad 2 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{t)} \quad 1 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{u)} \quad 3 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{v)} \quad 0 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{w)} \quad 1 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{x)} \quad 2 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{y)} \quad 1 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{z)} \quad 0 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{aa)} \quad 2 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{bb)} \quad 3 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{cc)} \quad 2 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{dd)} \quad 3 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{ee)} \quad 0 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{ff)} \quad 1 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{gg)} \quad 3 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{hh)} \quad 2 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{ii)} \quad 1 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{jj)} \quad 0 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{kk)} \quad 0 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{ll)} \quad 1 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{mm)} \quad 3 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{nn)} \quad 2 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{oo)} \quad 2 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{pp)} \quad 3 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{qq)} \quad 1 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{rr)} \quad 3 \\ \times 9 \\ \hline \end{array}$$

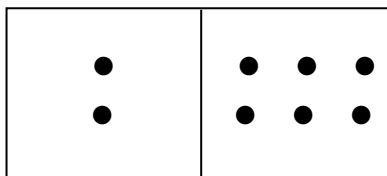
Answers to Exercise Seven

a) 3	b) 0	c) 10	d) 0	e) 9	f) 9	g) 0
h) 12	i) 1	j) 20	k) 27	l) 0	m) 14	n) 5
o) 0	p) 15	q) 0	r) 18	s) 4	t) 7	u) 12
v) 0	w) 4	x) 16	y) 8	z) 0	aa) 2	bb) 6
cc) 6	dd) 3	ee) 0	ff) 2	gg) 24	hh) 14	ii) 2
jj) 0	kk) 0	ll) 8	mm) 21	nn) 18	oo) 16	pp) 18
qq) 7	rr) 27					

Need Extra Practice? **Domino Practice** - Find a partner and ask your instructor for double twelve dominoes.

- Use only the following dominoes:
0-0 to 0-10
1-1 to 1-10
2-2 to 2-10
3-3 to 3-10
- Turn over the dominoes
- Flip a domino and multiply the two numbers

Example:



This would be 2 x 6

- If you answer correctly, keep the domino
- If you answer incorrectly, flip the domino over

Study the four times tables below.

$4 \times 0 = 0$
$4 \times 1 = 4$
$4 \times 2 = 8$
$4 \times 3 = 12$
$4 \times 4 = 16$
$4 \times 5 = 20$
$4 \times 6 = 24$
$4 \times 7 = 28$
$4 \times 8 = 32$
$4 \times 9 = 36$
$4 \times 10 = 40$

The fives times table is special. If you are multiplying by an even number, the product ends in zero. If you are multiplying by an odd number, the product ends in five.

$5 \times 0 = 0$
$5 \times 1 = 5$
$5 \times 2 = 10$
$5 \times 3 = 15$
$5 \times 4 = 20$
$5 \times 5 = 25$
$5 \times 6 = 30$
$5 \times 7 = 35$
$5 \times 8 = 40$
$5 \times 9 = 45$
$5 \times 10 = 50$

The products for the odd numbers 1, 3, 5, 7 and 9 end in five.

The products for the even numbers 2, 4, 6, 8 and 10 end in 10.

Study the six times tables below.

$6 \times 0 = 0$
$6 \times 1 = 6$
$6 \times 2 = 12$
$6 \times 3 = 18$
$6 \times 4 = 24$
$6 \times 5 = 30$
$6 \times 6 = 36$
$6 \times 7 = 42$
$6 \times 8 = 48$
$6 \times 9 = 54$
$6 \times 10 = 60$

Exercise Eight

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the four to six times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

a)
$$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 5 \\ \times 5 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$$

g)
$$\begin{array}{r} 5 \\ \times 1 \\ \hline \end{array}$$

h)
$$\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$$

i)
$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$

j)
$$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$$

k)
$$\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$$

l)
$$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$$

m)
$$\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$$

n)
$$\begin{array}{r} 6 \\ \times 0 \\ \hline \end{array}$$

o)
$$\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$$

p)
$$\begin{array}{r} 5 \\ \times 0 \\ \hline \end{array}$$

q)
$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

r)
$$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$$

s)
$$\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$$

t)
$$\begin{array}{r} 4 \\ \times 0 \\ \hline \end{array}$$

u)
$$\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$$

v)
$$\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$$

w)
$$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$$

x)
$$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} y) \quad 4 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} z) \quad 6 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} aa) \quad 5 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} bb) \quad 4 \\ \times 10 \\ \hline \end{array}$$

Answers to Exercise Eight

a) 15	b) 42	c) 8	d) 25	e) 12	f) 12	g) 5
h) 36	i) 16	j) 20	k) 18	l) 20	m) 40	n) 0
o) 24	p) 0	q) 36	r) 10	s) 48	t) 0	u) 24
v) 32	w) 45	x) 54	y) 4	z) 30	aa) 50	bb) 40

Exercise Nine

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the four to six times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

$$\begin{array}{r} a) \quad 5 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} b) \quad 6 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} c) \quad 4 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} d) \quad 5 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} e) \quad 6 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} f) \quad 4 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} g) \quad 5 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} h) \quad 6 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} i) \quad 4 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} j) \quad 5 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} k) \quad 6 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} l) \quad 4 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{m)} \quad 6 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{n)} \quad 4 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{o)} \quad 5 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{p)} \quad 6 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{q)} \quad 5 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{r)} \quad 6 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{s)} \quad 4 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{t)} \quad 5 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} \text{u)} \quad 4 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{v)} \quad 5 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{w)} \quad 6 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{x)} \quad 4 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{y)} \quad 5 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{z)} \quad 6 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{aa)} \quad 4 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{bb)} \quad 5 \\ \times 0 \\ \hline \end{array}$$

Answers to Exercise Nine

a) 30	b) 6	c) 28	d) 35	e) 60	f) 8	g) 20
h) 18	i) 16	j) 30	k) 24	l) 28	m) 54	n) 20
o) 10	p) 0	q) 35	r) 36	s) 0	t) 50	u) 36
v) 5	w) 30	x) 12	y) 45	z) 12	aa) 4	bb) 0

Exercise Ten

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the four to six times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

$$\begin{array}{r} \text{a)} \quad 6 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b)} \quad 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c)} \quad 4 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d)} \quad 6 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e)} \quad 4 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{f)} \quad 5 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{g)} \quad 6 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{h)} \quad 4 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} \text{i)} \quad 5 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{j)} \quad 6 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} \text{k)} \quad 4 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{l)} \quad 5 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{m)} \quad 4 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{n)} \quad 5 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{o)} \quad 6 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{p)} \quad 4 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{q)} \quad 6 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{r)} \quad 4 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{s)} \quad 5 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{t)} \quad 6 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{u)} \quad 5 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{v)} \quad 6 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{w)} \quad 4 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{x)} \quad 5 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{y)} \quad 6 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{z)} \quad 4 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{aa)} \quad 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{bb)} \quad 6 \\ \times 0 \\ \hline \end{array}$$

Answers to Exercise Ten

a) 48	b) 15	c) 32	d) 6	e) 24	f) 40	g) 42
h) 40	i) 25	j) 60	k) 28	l) 30	m) 4	n) 25
o) 12	p) 16	q) 54	r) 12	s) 20	t) 6	u) 45
v) 36	w) 32	x) 10	y) 48	z) 20	aa) 15	bb) 0

Need Extra Practice?

Card Practice - Find a partner and ask your instructor for a deck of cards.

- Take out all the jacks, queens and kings. You will only need the aces to tens.
- Choose a times table to practice.
- **Example:** to practice the 5 times table
- Choose a single 5 card and place it face up.
- Shuffle the remainder of the cards.
- From the shuffled cards, place one card face up next to the five.
- Multiply. Have your partner check your answer.
- If the answer is correct, leave it on the pile.
- If the answer is incorrect, place the card in front of you.
- Keep turning cards over until there are no cards left.
- Reshuffle any cards in front of you.
- Place a card on the pile and multiply.
- When all the cards are in the pile, you are done.
- Choose a different times table to practice and start again.

Exercise Eleven

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the zero to six times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

a)
$$\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 0 \\ \times 2 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 1 \\ \times 5 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 2 \\ \times 3 \\ \hline \end{array}$$

g)
$$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$$

h)
$$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$$

i)
$$\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$$

j)
$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

k)
$$\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$$

l)
$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

m)
$$\begin{array}{r} 5 \\ \times 1 \\ \hline \end{array}$$

n)
$$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$$

o)
$$\begin{array}{r} 3 \\ \times 10 \\ \hline \end{array}$$

p)
$$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$$

q)
$$\begin{array}{r} 1 \\ \times 3 \\ \hline \end{array}$$

r)
$$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$$

s)
$$\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$$

t)
$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

u)
$$\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$$

v)
$$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$$

w)
$$\begin{array}{r} 5 \\ \times 0 \\ \hline \end{array}$$

x)
$$\begin{array}{r} 4 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} \text{y)} \quad 1 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{z)} \quad 3 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{aa)} \quad 4 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{bb)} \quad 6 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{cc)} \quad 6 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{dd)} \quad 1 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{ee)} \quad 3 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{ff)} \quad 2 \\ \times 9 \\ \hline \end{array}$$

Answers to Exercise Eleven

a) 18	b) 35	c) 0	d) 24	e) 5	f) 6	g) 9
h) 8	i) 4	j) 42	k) 40	l) 36	m) 5	n) 8
o) 30	p) 10	q) 3	r) 15	s) 24	t) 42	u) 30
v) 12	w) 0	x) 40	y) 9	z) 6	aa) 0	bb) 54
cc) 36	dd) 0	ee) 21	ff) 18			

Exercise Twelve

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the zero to six times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

$$\begin{array}{r} \text{a)} \quad 3 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b)} \quad 1 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c)} \quad 4 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d)} \quad 3 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e)} \quad 4 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{f)} \quad 6 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{g)} \quad 3 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{h)} \quad 5 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{i)} \quad 4 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{j)} \quad 1 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{k)} \quad 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{l)} \quad 3 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{m)} \quad 2 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{n)} \quad 6 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{o)} \quad 4 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{p)} \quad 5 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{q)} \quad 1 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{r)} \quad 0 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{s)} \quad 5 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{t)} \quad 1 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{u)} \quad 5 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{v)} \quad 2 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{w)} \quad 6 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{x)} \quad 5 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} \text{y)} \quad 2 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{z)} \quad 6 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{aa)} \quad 5 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{bb)} \quad 4 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{cc)} \quad 1 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{dd)} \quad 2 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} \text{ee)} \quad 6 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{ff)} \quad 2 \\ \times 1 \\ \hline \end{array}$$

Answers to Exercise Twelve

a) 24	b) 6	c) 28	d) 18	e) 16	f) 12	g) 3
h) 25	i) 32	j) 1	k) 15	l) 27	m) 14	n) 0
o) 12	p) 30	q) 8	r) 0	s) 45	t) 7	u) 20
v) 16	w) 18	x) 50	y) 0	z) 48	aa) 10	bb) 20
cc) 4	dd) 20	ee) 6	ff) 2			

Exercise Thirteen

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the zero to six times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

a)
$$\begin{array}{r} 1 \\ \times 1 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 6 \\ \times 10 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 4 \\ \times 1 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 3 \\ \times 0 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 4 \\ \times 10 \\ \hline \end{array}$$

g)
$$\begin{array}{r} 2 \\ \times 1 \\ \hline \end{array}$$

h)
$$\begin{array}{r} 1 \\ \times 7 \\ \hline \end{array}$$

i)
$$\begin{array}{r} 0 \\ \times 6 \\ \hline \end{array}$$

j)
$$\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$$

k)
$$\begin{array}{r} 1 \\ \times 2 \\ \hline \end{array}$$

l)
$$\begin{array}{r} 0 \\ \times 10 \\ \hline \end{array}$$

m)
$$\begin{array}{r} 1 \\ \times 3 \\ \hline \end{array}$$

n)
$$\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$$

o)
$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

p)
$$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$$

q)
$$\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$$

r)
$$\begin{array}{r} 3 \\ \times 10 \\ \hline \end{array}$$

s)
$$\begin{array}{r} 5 \\ \times 0 \\ \hline \end{array}$$

t)
$$\begin{array}{r} 1 \\ \times 10 \\ \hline \end{array}$$

u)
$$\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$$

v)
$$\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$$

w)
$$\begin{array}{r} 4 \\ \times 7 \\ \hline \end{array}$$

x)
$$\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} y) \quad 6 \\ \underline{\times 6} \end{array}$$

$$\begin{array}{r} z) \quad 5 \\ \underline{\times 5} \end{array}$$

$$\begin{array}{r} aa) \quad 3 \\ \underline{\times 9} \end{array}$$

$$\begin{array}{r} bb) \quad 6 \\ \underline{\times 8} \end{array}$$

$$\begin{array}{r} cc) \quad 6 \\ \underline{\times 2} \end{array}$$

$$\begin{array}{r} dd) \quad 4 \\ \underline{\times 6} \end{array}$$

$$\begin{array}{r} ee) \quad 3 \\ \underline{\times 7} \end{array}$$

$$\begin{array}{r} ff) \quad 2 \\ \underline{\times 9} \end{array}$$

Answers to Exercise Thirteen

a) 1	b) 60	c) 4	d) 0	e) 35	f) 40	g) 2
h) 7	i) 0	j) 24	k) 2	l) 0	m) 3	n) 40
o) 42	p) 20	q) 30	r) 30	s) 0	t) 10	u) 30
v) 18	w) 28	x) 32	y) 36	z) 25	aa) 27	bb) 48
cc) 12	dd) 24	ee) 21	ff) 18			

Study the seven times table below.

$7 \times 0 = 0$
$7 \times 1 = 7$
$7 \times 2 = 14$
$7 \times 3 = 21$
$7 \times 4 = 28$
$7 \times 5 = 35$
$7 \times 6 = 42$
$7 \times 7 = 49$
$7 \times 8 = 56$
$7 \times 9 = 63$
$7 \times 10 = 70$

Study the eight times table below.

$8 \times 0 = 0$
$8 \times 1 = 8$
$8 \times 2 = 16$
$8 \times 3 = 24$
$8 \times 4 = 32$
$8 \times 5 = 40$
$8 \times 6 = 48$
$8 \times 7 = 56$
$8 \times 8 = 64$
$8 \times 9 = 72$
$8 \times 10 = 80$

The nines times table is special. The digits of every product add up to nine. Also the first digit in the product is one less than the number you are multiplying

$9 \times 0 = 0$	
$9 \times 1 = 9$	9
$9 \times 2 = 18$	$18 \gg 1 + 8 = 9$
$9 \times 3 = 27$	$27 \gg 2 + 7 = 9$
$9 \times 4 = 36$	$36 \gg 3 + 6 = 9$
$9 \times 5 = 45$	$45 \gg 4 + 5 = 9$
$9 \times 6 = 54$	$54 \gg 5 + 4 = 9$
$9 \times 7 = 63$	$63 \gg 6 + 3 = 9$
$9 \times 8 = 72$	$72 \gg 7 + 2 = 9$
$9 \times 9 = 81$	$81 \gg 8 + 1 = 9$
$9 \times 10 = 90$	$90 \gg 9 + 0 = 9$

Exercise Fourteen

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the seven to nine times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

a)
$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 9 \\ \times 0 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 7 \\ \times 0 \\ \hline \end{array}$$

g)
$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

h)
$$\begin{array}{r} 9 \\ \times 1 \\ \hline \end{array}$$

i)
$$\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$$

j)
$$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$$

k)
$$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$

l)
$$\begin{array}{r} 8 \\ \times 0 \\ \hline \end{array}$$

m)
$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

n)
$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$

o)
$$\begin{array}{r} 8 \\ \times 1 \\ \hline \end{array}$$

p)
$$\begin{array}{r} 9 \\ \times 10 \\ \hline \end{array}$$

q)
$$\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$$

r)
$$\begin{array}{r} 8 \\ \times 4 \\ \hline \end{array}$$

s)
$$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$$

t)
$$\begin{array}{r} 7 \\ \times 10 \\ \hline \end{array}$$

u)
$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

v)
$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

w)
$$\begin{array}{r} 7 \\ \times 1 \\ \hline \end{array}$$

x)
$$\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{y)} \quad 7 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{z)} \quad 8 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{aa)} \quad 9 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{bb)} \quad 7 \\ \times 8 \\ \hline \end{array}$$

Answers to Exercise Fourteen

a) 28	b) 24	c) 0	d) 14	e) 54	f) 0	g) 64
h) 9	i) 48	j) 18	k) 63	l) 0	m) 36	n) 49
o) 8	p) 90	q) 35	r) 32	s) 27	t) 70	u) 64
v) 45	w) 7	x) 16	y) 21	z) 40	aa) 81	bb) 56

Exercise Fifteen

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the seven to nine times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

$$\begin{array}{r} \text{a)} \quad 8 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b)} \quad 9 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c)} \quad 7 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d)} \quad 8 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e)} \quad 9 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{f)} \quad 7 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{g)} \quad 8 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{h)} \quad 9 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{i)} \quad 8 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{j)} \quad 7 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{k)} \quad 9 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{l)} \quad 8 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{m)} \quad 9 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{n)} \quad 8 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{o)} \quad 7 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{p)} \quad 9 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{q)} \quad 7 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{r)} \quad 9 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{s)} \quad 8 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{t)} \quad 7 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{u)} \quad 8 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{v)} \quad 7 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{w)} \quad 9 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{x)} \quad 8 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{y)} \quad 7 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{z)} \quad 9 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{aa)} \quad 8 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{bb)} \quad 7 \\ \times 10 \\ \hline \end{array}$$

Answers to Exercise Fifteen

a) 56	b) 72	c) 42	d) 80	e) 63	f) 21	g) 48
h) 9	i) 24	j) 49	k) 36	l) 72	m) 54	n) 8
o) 0	p) 18	q) 63	r) 81	s) 16	t) 14	u) 64
v) 7	w) 63	x) 32	y) 28	z) 27	aa) 0	bb) 70

Exercise Sixteen

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the seven to nine times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

a)
$$\begin{array}{r} 9 \\ \times 0 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$$

g)
$$\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$$

h)
$$\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$$

i)
$$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$$

j)
$$\begin{array}{r} 8 \\ \times 10 \\ \hline \end{array}$$

k)
$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

l)
$$\begin{array}{r} 9 \\ \times 10 \\ \hline \end{array}$$

m)
$$\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$$

n)
$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$

o)
$$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$$

p)
$$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$$

q)
$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

r)
$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

s)
$$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$$

t)
$$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$$

u)
$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

v)
$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

w)
$$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$$

x)
$$\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} y) \quad 7 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} z) \quad 8 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} aa) \quad 9 \\ \times 6 \\ \hline \end{array}$$

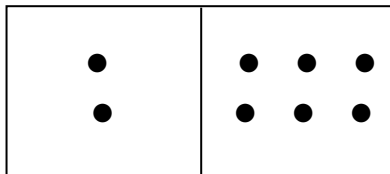
$$\begin{array}{r} bb) \quad 7 \\ \times 0 \\ \hline \end{array}$$

Answers to Exercise Sixteen

a) 0	b) 56	c) 35	d) 45	e) 42	f) 72	g) 40
h) 56	i) 72	j) 80	k) 28	l) 90	m) 48	n) 49
o) 27	p) 72	q) 36	r) 24	s) 21	t) 72	u) 64
v) 81	w) 14	x) 16	y) 63	z) 8	aa) 54	bb) 0

Need Extra Practice? **Domino Practice** - Find a partner and ask your instructor for double twelves dominoes.

- Use only the following dominoes:
 1-0 to 0-10
 1-2 to 1-10
 2-2 to 2-10
 3-3 to 3-10
 4-4 to 4-10
 5-5 to 5-10
 6-6 to 6-10
 7-7 to 7-10
 8-8 to 8-10
 9-9 to 9-10
 10-10
 - Turn over the dominoes
 - Flip a domino and multiply the two numbers
- Example:**



This would be 2 x 6

- If you answer correctly, keep the domino

Need Extra Practice?

- If you answer incorrectly, flip the domino over
- Card Practice** - Find a partner and ask your instructor for a deck of cards.

- Take out all the jacks, queens and kings. You will only need the aces to tens.
- Choose a times table to practice.
- **Example:** to practice the 8 times table
- Choose a single 8 card and place it face up.
- Shuffle the remainder of the cards.
- From the shuffled cards, place one card face up next to the five.
- Multiply. Have your partner check your answer.
- If the answer is correct, leave it on the pile.
- If the answer is incorrect, place the card in front of you.
- Keep turning cards over until there are no cards left.
- Reshuffle any cards in front of you.
- Place a card on the pile and multiply.
- When all the cards are in the pile, you are done.
- Choose a different times table to practice and start again.

Exercise Seventeen

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the zero to nine times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

a)
$$\begin{array}{r} 3 \\ \times 1 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 0 \\ \times 9 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 1 \\ \times 3 \\ \hline \end{array}$$

g)
$$\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$$

h)
$$\begin{array}{r} 1 \\ \times 4 \\ \hline \end{array}$$

i)
$$\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$$

j)
$$\begin{array}{r} 9 \\ \times 0 \\ \hline \end{array}$$

k)
$$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$$

l)
$$\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$$

m)
$$\begin{array}{r} 1 \\ \times 9 \\ \hline \end{array}$$

n)
$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

o)
$$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$$

p)
$$\begin{array}{r} 0 \\ \times 1 \\ \hline \end{array}$$

q)
$$\begin{array}{r} 7 \\ \times 0 \\ \hline \end{array}$$

r)
$$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$$

s)
$$\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$$

t)
$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

u)
$$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$$

v)
$$\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$$

w)
$$\begin{array}{r} 7 \\ \times 1 \\ \hline \end{array}$$

x)
$$\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} y) \quad 3 \\ \underline{\times 9} \end{array}$$

$$\begin{array}{r} z) \quad 9 \\ \underline{\times 7} \end{array}$$

$$\begin{array}{r} aa) \quad 1 \\ \underline{\times 3} \end{array}$$

$$\begin{array}{r} bb) \quad 0 \\ \underline{\times 4} \end{array}$$

$$\begin{array}{r} cc) \quad 8 \\ \underline{\times 0} \end{array}$$

$$\begin{array}{r} dd) \quad 2 \\ \underline{\times 6} \end{array}$$

$$\begin{array}{r} ee) \quad 7 \\ \underline{\times 3} \end{array}$$

$$\begin{array}{r} ff) \quad 5 \\ \underline{\times 5} \end{array}$$

$$\begin{array}{r} gg) \quad 6 \\ \underline{\times 1} \end{array}$$

$$\begin{array}{r} hh) \quad 3 \\ \underline{\times 7} \end{array}$$

$$\begin{array}{r} ii) \quad 2 \\ \underline{\times 4} \end{array}$$

$$\begin{array}{r} jj) \quad 8 \\ \underline{\times 9} \end{array}$$

$$\begin{array}{r} kk) \quad 9 \\ \underline{\times 2} \end{array}$$

$$\begin{array}{r} ll) \quad 1 \\ \underline{\times 6} \end{array}$$

$$\begin{array}{r} mm) \quad 4 \\ \underline{\times 0} \end{array}$$

$$\begin{array}{r} nn) \quad 0 \\ \underline{\times 8} \end{array}$$

Answers to Exercise Seventeen

a) 3	b) 10	c) 0	d) 32	e) 30	f) 3	g) 42
h) 4	i) 56	j) 0	k) 18	l) 35	m) 9	n) 24
o) 10	p) 0	q) 0	r) 8	s) 48	t) 36	u) 20
v) 12	w) 7	x) 40	y) 27	z) 63	aa) 3	bb) 0
cc) 0	dd) 12	ee) 21	ff) 25	gg) 6	hh) 21	ii) 8
jj) 72	ll) 18	ll) 6	mm) 0	nn) 0		

Exercise Eighteen

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the zero to nine times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

a)
$$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 1 \\ \times 8 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 4 \\ \times 7 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 0 \\ \times 5 \\ \hline \end{array}$$

g)
$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

h)
$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

i)
$$\begin{array}{r} 8 \\ \times 1 \\ \hline \end{array}$$

j)
$$\begin{array}{r} 3 \\ \times 0 \\ \hline \end{array}$$

k)
$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$

l)
$$\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$$

m)
$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

n)
$$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$$

o)
$$\begin{array}{r} 0 \\ \times 9 \\ \hline \end{array}$$

p)
$$\begin{array}{r} 6 \\ \times 0 \\ \hline \end{array}$$

q)
$$\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$$

r)
$$\begin{array}{r} 1 \\ \times 1 \\ \hline \end{array}$$

s)
$$\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$$

t)
$$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$$

u)
$$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$$

v)
$$\begin{array}{r} 5 \\ \times 1 \\ \hline \end{array}$$

w)
$$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$$

x)
$$\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} y) \quad 1 \\ \underline{\times 0} \end{array}$$

$$\begin{array}{r} z) \quad 3 \\ \underline{\times 8} \end{array}$$

$$\begin{array}{r} aa) \quad 0 \\ \underline{\times 7} \end{array}$$

$$\begin{array}{r} bb) \quad 6 \\ \underline{\times 4} \end{array}$$

$$\begin{array}{r} cc) \quad 8 \\ \underline{\times 2} \end{array}$$

$$\begin{array}{r} dd) \quad 4 \\ \underline{\times 6} \end{array}$$

$$\begin{array}{r} ee) \quad 8 \\ \underline{\times 5} \end{array}$$

$$\begin{array}{r} ff) \quad 5 \\ \underline{\times 6} \end{array}$$

$$\begin{array}{r} gg) \quad 3 \\ \underline{\times 4} \end{array}$$

$$\begin{array}{r} hh) \quad 2 \\ \underline{\times 8} \end{array}$$

$$\begin{array}{r} ii) \quad 0 \\ \underline{\times 3} \end{array}$$

$$\begin{array}{r} jj) \quad 6 \\ \underline{\times 7} \end{array}$$

$$\begin{array}{r} kk) \quad 1 \\ \underline{\times 10} \end{array}$$

$$\begin{array}{r} ll) \quad 4 \\ \underline{\times 9} \end{array}$$

$$\begin{array}{r} mm) \quad 9 \\ \underline{\times 1} \end{array}$$

$$\begin{array}{r} nn) \quad 7 \\ \underline{\times 2} \end{array}$$

Answers to Exercise Eighteen

a) 45	b) 18	c) 8	d) 4	e) 28	f) 0	g) 28
h) 54	i) 8	j) 0	k) 16	l) 56	m) 45	n) 15
o) 0	p) 0	q) 6	r) 1	s) 48	t) 14	u) 18
v) 5	w) 27	x) 35	y) 0	z) 24	aa) 0	bb) 24
cc) 16	dd) 24	ee) 40	ff) 30	gg) 12	hh) 16	ii) 0
jj) 42	kk) 10	ll) 36	mm) 9	nn) 14		

Exercise Nineteen

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the zero to nine times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

a)
$$\begin{array}{r} 1 \\ \times 2 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

g)
$$\begin{array}{r} 2 \\ \times 0 \\ \hline \end{array}$$

h)
$$\begin{array}{r} 4 \\ \times 1 \\ \hline \end{array}$$

i)
$$\begin{array}{r} 0 \\ \times 5 \\ \hline \end{array}$$

j)
$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

k)
$$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$$

l)
$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

m)
$$\begin{array}{r} 1 \\ \times 7 \\ \hline \end{array}$$

n)
$$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$$

o)
$$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$$

p)
$$\begin{array}{r} 0 \\ \times 6 \\ \hline \end{array}$$

q)
$$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$$

r)
$$\begin{array}{r} 2 \\ \times 1 \\ \hline \end{array}$$

s)
$$\begin{array}{r} 1 \\ \times 5 \\ \hline \end{array}$$

t)
$$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$

u)
$$\begin{array}{r} 8 \\ \times 4 \\ \hline \end{array}$$

v)
$$\begin{array}{r} 0 \\ \times 2 \\ \hline \end{array}$$

w)
$$\begin{array}{r} 5 \\ \times 1 \\ \hline \end{array}$$

x)
$$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} y) \quad 2 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} z) \quad 0 \\ \times 0 \\ \hline \end{array}$$

$$\begin{array}{r} aa) \quad 6 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} bb) \quad 3 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} cc) \quad 8 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} dd) \quad 7 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} ee) \quad 1 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} ff) \quad 3 \\ \times 2 \\ \hline \end{array}$$

Answers to Exercise Nineteen

a) 2	b) 9	c) 36	d) 20	e) 49	f) 64	g) 0
h) 4	i) 0	j) 54	k) 12	l) 81	m) 7	n) 54
o) 15	p) 0	q) 8	r) 2	s) 5	t) 63	u) 32
v) 0	w) 5	x) 72	y) 10	z) 0	aa) 24	bb) 21
cc) 16	dd) 35	ee) 1	ff) 6			

Exercise Twenty

Check out your **multiplication facts** by doing this exercise as quickly as possible. Find the product. This exercise includes the zero to nine times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

$$\begin{array}{r} a) \quad 5 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} b) \quad 7 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} c) \quad 6 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} d) \quad 9 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} e) \quad 6 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} f) \quad 7 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} g) \quad 2 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} h) \quad 4 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{i)} \quad 9 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{j)} \quad 3 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{k)} \quad 7 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{l)} \quad 9 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{m)} \quad 4 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{n)} \quad 6 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{o)} \quad 9 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{p)} \quad 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{q)} \quad 9 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{r)} \quad 8 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{s)} \quad 7 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{t)} \quad 6 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{u)} \quad 7 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{v)} \quad 5 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} \text{w)} \quad 8 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{x)} \quad 9 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{y)} \quad 8 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{z)} \quad 7 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{aa)} \quad 8 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} \text{bb)} \quad 2 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{cc)} \quad 4 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{dd)} \quad 5 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{ee)} \quad 1 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{ff)} \quad 0 \\ \times 9 \\ \hline \end{array}$$

Answers to Exercise Twenty

a) 20	b) 21	c) 30	d) 63	e) 18	f) 42	g) 2
h) 12	i) 45	j) 3	k) 42	l) 18	m) 4	n) 12
o) 81	p) 15	q) 36	r) 40	s) 28	t) 6	u) 7
v) 10	w) 81	x) 72	y) 32	z) 49	aa) 8	bb) 12
cc) 32	dd) 30	ee) 7	ff) 0			



Make a list of any errors that you have made and of the facts that you had to really think about.

As you know, it is very important to memorize the times tables. Use the **times table chart** on the next page until you have all the multiplication facts memorized. It is better to look up the right answer than use the wrong product. Finding the right product and saying the facts to yourself will help you learn.

Times Table Chart

Let's say you do not know the product of 8×9 .

- Find the first factor (8) in the column at the left.
- Find the second factor (9) in the top row.
- Go across the row from the 8 and straight down the column from the 9.
- The lines meet at the product which is 72 ... Try it! Now try finding the products of some other multiplication facts.

Times Table Chart

\times	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

Times Tables are very difficult to memorize. Here's a technique that may help you to learn them.

An instructor used this technique to teach his students the times tables. It does require you to do some work and will take some time. But, if you are willing, you will learn them. Here's how it works.

Most people can only memorize three things; as soon as they try to memorize a fourth thing, they lose one of the first three. So, instead of trying to memorize the complete times table (which is 121 things), just do three.

Start with these three.

$$9 \times 9 = 81$$

$$8 \times 8 = 64$$

$$8 \times 9 = 72$$

If you know any of these already, for example, you automatically know that $9 \times 9 = 81$, choose another one, like $7 \times 7 = 49$.

Write these three on small cards or pieces of paper in three different ways:

$$9 \times 9 = 81$$

$$8 \times 8 = 64$$

$$8 \times 9 = 72$$

$$9 \times 9 = \underline{\hspace{2cm}}$$

$$8 \times 8 = \underline{\hspace{2cm}}$$

$$8 \times 9 = \underline{\hspace{2cm}}$$

$$9 \times \underline{\hspace{2cm}} = 81$$

$$8 \times \underline{\hspace{2cm}} = 64$$

$$8 \times \underline{\hspace{2cm}} = 72$$

Note: $8 \times 9 = 72$ and $9 \times 8 = 72$. Both are the same, so when you learn 8×9 you will also know 9×8 . You will have learned part of the 8 times table and part of the 9 times table.

Do a number of these and stick them up around your house – over the kitchen sink, on your bathroom mirror, on your closet door, etc. Then, every time you see one of these, run through it in your mind. It only takes about 5 seconds each time. After about a week or two, you will have learned these three. If anyone were to ask you what 9×9 was, you would automatically know that it is 81. You wouldn't have to figure it out; you would know it. And, once you know it, you will never forget it.

Once you have master these three, do three more, like $7 \times 7 = 49$, $7 \times 8 = 56$, $7 \times 9 = 63$. Again, make up small cards and put them all over your house. In another week or so, you will have learned these and can do another three.

If you are willing to do the work, you will learn your times tables. And, once you learn them, you will never forget them. That will make your work in mathematics much easier, and maybe even more fun. Try it! It does work.

Multiplying Across

So far you have only been multiplying numbers when they are **up and down** or **vertical**.

Example:

$$\begin{array}{r} 4 \\ \times 5 \\ \hline 20 \end{array}$$

Another way to multiply numbers is **across** or **horizontally**.

Example: $4 \times 5 = 20$

In math, sometimes you will need to work from left to right.

Exercise One

Practice multiplying **across or horizontally**. Find the product. This exercise includes the zero to nine times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

a) $2 \times 6 =$

b) $5 \times 4 =$

c) $7 \times 3 =$

d) $3 \times 6 =$

e) $8 \times 5 =$

f) $4 \times 7 =$

g) $9 \times 2 =$

h) $6 \times 5 =$

i) $5 \times 3 =$

j) $3 \times 8 =$

k) $7 \times 7 =$

l) $2 \times 9 =$

m) $4 \times 6 =$

n) $6 \times 9 =$

o) $8 \times 8 =$

p) $9 \times 4 =$

q) $3 \times 9 =$

r) $4 \times 4 =$

s) $6 \times 7 =$

t) $9 \times 6 =$

Answers to Exercise One

a) 12

b) 20

c) 21

d) 18

e) 40

f) 28

g) 18

h) 30

i) 15

j) 24

k) 49

l) 18

m) 24

n) 54

o) 64

p) 36

q) 27

r) 16

s) 42

t) 54

Exercise Two

Practice multiplying **across or horizontally**. Find the product. This exercise includes the zero to nine times tables. Check your work using the answer key at the end of the exercise. Then, make a list of any multiplication facts you do not know or which are slow – practice them.

a) $2 \times 7 =$

b) $5 \times 8 =$

c) $7 \times 9 =$

d) $8 \times 4 =$

e) $4 \times 5 =$

f) $6 \times 8 =$

g) $8 \times 7 =$

h) $9 \times 3 =$

i) $5 \times 6 =$

j) $3 \times 7 =$

k) $7 \times 6 =$

l) $2 \times 8 =$

m) $5 \times 5 =$

n) $4 \times 8 =$

o) $6 \times 6 =$

p) $7 \times 8 =$

q) $8 \times 9 =$

r) $9 \times 7 =$

s) $5 \times 7 =$

t) $9 \times 9 =$

Answers to Exercise Two

a) 14	b) 40	c) 63	d) 32	e) 20	f) 48	g) 56
h) 27	i) 30	j) 21	k) 42	l) 16	m) 25	n) 32
o) 36	p) 56	q) 72	r) 63	s) 35	t) 81	

Topic A: Self-Test

Mark /20

Aim 17/20

A. Find the products. Be sure to check your answers.

16 marks

a)
$$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

g)
$$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$$

h)
$$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$$

i)
$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$

j)
$$\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$$

k)
$$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$$

l)
$$\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$$

m)
$$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$$

n)
$$\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$$

o)
$$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$$

p)
$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

B. Find the products. Be sure to check your answers.

4 marks

a) $7 \times 5 =$

b) $8 \times 6 =$

c) $9 \times 8 =$

d) $7 \times 4 =$

Answers to Topic A Self-Test**A.**

- | | | | | | |
|-------|-------|-------|-------|-------|-------|
| a) 9 | b) 36 | c) 24 | d) 56 | e) 24 | f) 45 |
| g) 27 | h) 54 | i) 49 | j) 32 | k) 72 | l) 10 |
| m) 21 | n) 24 | o) 45 | p) 42 | | |

B.

- | | | | |
|-------|-------|-------|-------|
| a) 35 | b) 48 | c) 72 | d) 28 |
|-------|-------|-------|-------|

Topic B: Multiplying by 10, 100, and 1 000

When multiplying by 10, 100, 1 000, 10 000, etc., place as many zeros to the right of the number as there are zeros in the 10, 100, 1 000, etc..

To multiply by 10 put one zero after the number.

To multiply by 100 put two zeros after the number.

To multiply by 1 000 put three zeros after the number.

Example: $4 \times 100 =$

100 has two zeroes. Put two zeroes after the number.

$$4 \times 100 = 400$$

Exercise One

Find the products. Check your work using the answer key at the end of the exercise.

a) $10 \times 2 =$

b) $9 \times 100 =$

c) $100 \times 3 =$

d) $1 \times 1\,000 =$

e) $6 \times 100 =$

f) $10 \times 7 =$

g) $100 \times 10 =$

h) $2 \times 10 =$

i) $5 \times 10 =$

j) $1\,000 \times 1 =$

k) $0 \times 10 =$

l) $1\,000 \times 9 =$

m) $4 \times 1\,000 =$

n) $10 \times 0 =$

$$o) \quad 100 \times 8 =$$

$$p) \quad 3 \times 1\,000 =$$

$$q) \quad 10 \times 5 =$$

$$r) \quad 7 \times 1\,000 =$$

$$s) \quad 1\,000 \times 6 =$$

$$t) \quad 8 \times 10 =$$

$$u) \quad 100 \times 4 =$$

$$v) \quad 1 \times 100 =$$

$$w) \quad 1\,000 \times 3 =$$

$$x) \quad 10 \times 100 =$$

Answers to Exercise One

a) 20	b) 900	c) 300	d) 1 000	e) 600	f) 70	g) 1 000
h) 20	i) 50	j) 1 000	k) 0	l) 9 000	m) 4 000	n) 0
o) 800	p) 3 000	q) 50	r) 7 000	s) 6 000	t) 80	u) 400
v) 100	w) 3 000	x) 1 000				

Exercise Two

Find the products. Check your work using the answer key at the end of the exercise.

$$a) \quad 100 \times 9 =$$

$$b) \quad 10 \times 1\,000 =$$

$$c) \quad 10 \times 9 =$$

$$d) \quad 1\,000 \times 8 =$$

$$e) \quad 6 \times 10 =$$

$$f) \quad 100 \times 0 =$$

$$g) \quad 3 \times 100 =$$

$$h) \quad 10 \times 1 =$$

i) $100 \times 1 =$

j) $5 \times 1\,000 =$

k) $8 \times 100 =$

l) $1\,000 \times 4 =$

m) $9 \times 10 =$

n) $10 \times 100 =$

o) $10 \times 6 =$

p) $5 \times 100 =$

q) $1 \times 10 =$

r) $9 \times 1\,000 =$

s) $100 \times 6 =$

t) $10 \times 8 =$

u) $3 \times 10 =$

v) $1\,000 \times 0 =$

w) $2 \times 1\,000 =$

x) $1\,000 \times 7 =$

Answers to Exercise Two

a) 900	b) 10 000	c) 90	d) 8 000	e) 60	f) 0	g) 300
h) 10	i) 100	j) 5 000	k) 800	l) 4 000	m) 90	n) 1 000
o) 60	p) 500	q) 10	r) 9 000	s) 600	t) 80	u) 30
v) 0	w) 2 000	x) 7 000				

Exercise Three

Find the products. Check your work using the answer key at the end of the exercise.

a) $8 \times 1\,000 =$

b) $100 \times 7 =$

c) $4 \times 10 =$

d) $1\,000 \times 2 =$

e) $10 \times 3 =$

f) $7 \times 100 =$

g) $0 \times 1\,000 =$

h) $100 \times 2 =$

i) $10 \times 10 =$

j) $1\,000 \times 5 =$

k) $0 \times 100 =$

l) $10 \times 4 =$

m) $2 \times 100 =$

n) $6 \times 1\,000 =$

o) $100 \times 5 =$

p) $1\,000 \times 10 =$

q) $7 \times 10 =$

r) $100 \times 10 =$

s) $4 \times 100 =$

t) $3 \times 1\,000 =$

u) $9 \times 10 =$

v) $10 \times 10 =$

w) $10 \times 7 =$

x) $1\,000 \times 5 =$

Answers to Exercise Three

a) 8 000	b) 700	c) 40	d) 2 000	e) 30	f) 700	g) 0
h) 200	i) 100	j) 5 000	k) 0	l) 40	m) 200	n) 6 000
o) 500	p) 10 000	q) 70	r) 1 000	s) 400	t) 3 000	u) 90
v) 100	w) 70	x) 5 000				

Topic B: Self-Test

Mark /18

Aim 15/18

A. Find the products. Be sure to check your answers.

6 marks

a) $3 \times 10 =$

b) $6 \times 100 =$

c) $8 \times 1\,000 =$

d) $7 \times 1\,000 =$

e) $4 \times 100 =$

f) $5 \times 10 =$

B. Find the products. Be sure to check your answers.

6 marks

a) $10 \times 10 =$

b) $1\,000 \times 9 =$

c) $100 \times 10 =$

d) $100 \times 2 =$

e) $10 \times 0 =$

f) $1\,000 \times 4 =$

C. Find the products. Be sure to check your answers.

6 marks

a) $10 \times 6 =$

b) $1\,000 \times 7 =$

c) $100 \times 4 =$

d) $5 \times 1\,000 =$

e) $8 \times 10 =$

f) $10 \times 100 =$

Answers to Topic B Self-Test**A.**

- a) 30 b) 600 c) 8 000 d) 7 000 e) 400 f) 50

B.

- a) 100 b) 9 000 c) 1 000 d) 200 e) 0 f) 4 000

C.

- a) 60 b) 7 000 c) 400 d) 5 000 e) 80 f) 1 000

Topic C: Word Problems

Learning multiplication facts is very important. Once you know them all, you can use them to solve word problems.

Words such as **product**, **altogether** and **in all** tell you may need to multiply the numbers. Look for these words when reading word problems and underline them before trying to solve a problem. Circle the information that is given.

Example: Mr. Wong rides his bicycle 6 kilometres every day. How far will he ride altogether in 9 days?

Mr. Wong rides his bicycle 6 kilometres every day. How far will he ride altogether in 9 days?

You have circled 6 kilometres and 9 days. This is the information you will use to find the answer.

You have underlined “How far will he ride.” These words tell you to multiply.

$$\begin{array}{r} 6 \text{ kilometres} \\ \times 9 \text{ days} \\ \hline 54 \end{array}$$

Mr. Wong will ride 54 kilometres in 9 days.

Exercise One

Solve each of the following word problems. Be sure to underline the words that tell you to multiply. Circle the information that is given. Have your instructor check your underlining and circling.

- a) There are 5 rows of mailboxes in an apartment building. There are 7 mailboxes in each row. How many mailboxes are there in all?
- b) At the grocery store, there are 8 cans of corn in each row. There are 6 rows of corn. How many cans of corn are there altogether?
- c) There are 7 days in a week. How many days are there in 4 weeks?

d) Thalia walks 6 blocks each day going to and from college. How many blocks does she walk going to and from college 5 days a week?

e) There are 8 chairs around each table in the library. There are 9 tables in the library. How many chairs are around all the tables?

f) Barindra works 7 hours each day. How many hours will he work in 6 days?

g) Milton bought 5 cases of pop. Each case had 8 cans. How many cans of pop did Milton have?

h) There are 8 hotdogs in a package. How many hotdogs are there in 7 packages?

i) Solita placed 7 cupcakes on a plate. She filled 3 plates. How many cupcakes were there altogether?

Answers to Exercise One

a) 35 mailboxes

b) 48 cans

c) 28 days

d) 30 blocks

e) 72 chairs

f) 42 hours

g) 40 cans

h) 56 hotdogs

i) 21 cupcakes

Area

Area means **the surface that is inside a shape**. The units of measure of area are always **square units** (meaning having both length and width).

Rectangle

length



width

To find the area of a rectangle, multiply **length x width**.

Example A:

8 metres



3 metres

To find the area of the rectangle multiply **length x width**.

Area = length x width

Area = 8 metres x 3 metres

Area = 24 square metres

Example B:

4 centimetres



7 centimetres

To find the area of the rectangle multiply **length x width**.

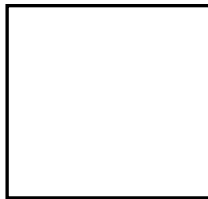
Area = length x width

Area = 4 centimetres x 7 centimetres

Area = 28 square centimetres

Square

side



side

To find the area of a square multiply **side x side**.

Example C:

9 metres



9 metres

To find the area of the square multiply **side x side**.

Area = side x side

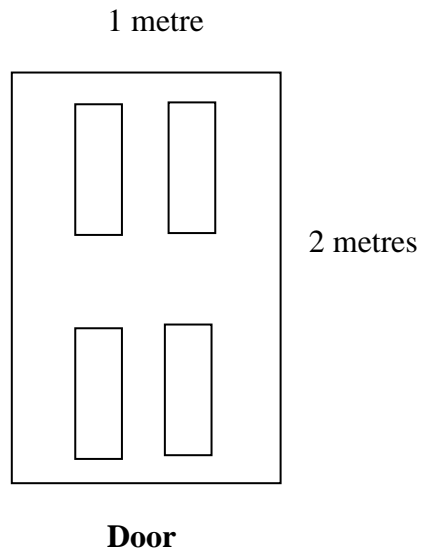
Area = 9 metres x 9 metres

Area = 81 square metres

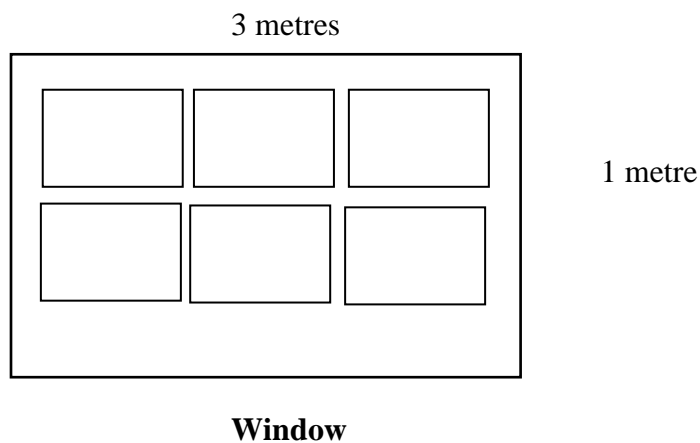
Exercise Two

Find the area of each shape. Be sure to include the units of measure in your answer. Check your work using the answer key at the end of the exercise.

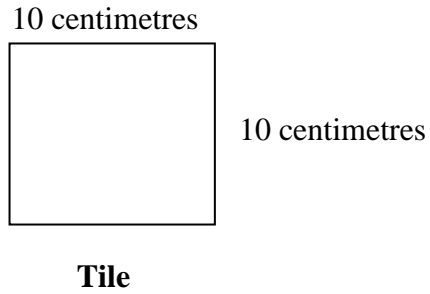
a)



b)



c)



- d) A floor is 8 metres long and 4 metres wide. What is the area of the floor?
(Hint: Draw a picture.)

Answers to Exercise Two

- a) 2 square metres b) 3 square metres c) 100 square centimetres
d) 32 square metres

A. Solve each of the following word problems.

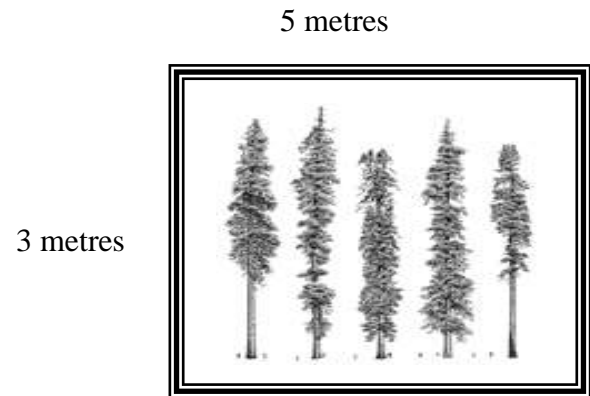
8 marks

Be sure to include the unit of measure in your answer. (2 marks each)

Be sure to circle information and underline what is being asked.

- a) Diego puts 6 apples into each bag. How many apples are there in 4 bags?
- b) Alain wants to walk up 6 flights of stairs. There are 10 steps in each flight. How many steps will he have to walk up altogether?
- c) In the metric system, 10 millimetres equals 1 centimetre. How many millimetres are there in 100 centimetres? (**Hint:** Multiply the number of centimeters by 10.)

- d) Find the area of the picture



Answers to Topic C Self-Test

- a) 24 apples b) 60 steps c) 1 000 millimetres d) 15 square metres

Unit 4 Review - Multiplication

You will now practice all the skills you learned in Unit 4. Check your work using the answer key at the end of the review

P. Find the products.

a)
$$\begin{array}{r} 0 \\ \times 7 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 2 \\ \times 3 \\ \hline \end{array}$$

e)
$$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$$

f)
$$\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$$

g)
$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

h)
$$\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$$

i)
$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

j)
$$\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$$

k)
$$\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$$

l)
$$\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$$

m)
$$\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$$

n)
$$\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$$

o)
$$\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$$

p)
$$\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$$

Q. Multiply across or horizontally.

a) $7 \times 7 =$

b) $9 \times 7 =$

c) $2 \times 9 =$

d) $4 \times 4 =$

e) $3 \times 4 =$

f) $5 \times 7 =$

g) $8 \times 5 =$

h) $6 \times 4 =$

R. Find the products.

a) $10 \times 4 =$

b) $7 \times 100 =$

c) $100 \times 5 =$

d) $1 \times 10 =$

e) $1\,000 \times 8 =$

f) $10 \times 9 =$

g) $100 \times 8 =$

h) $7 \times 1\,000 =$

i) $1\,000 \times 2 =$

j) $6 \times 10 =$

k) $9 \times 100 =$

l) $4 \times 1\,000 =$

S. Word Problems.

- a) During a fishing derby, 8 people caught 7 fish each. How many fish were caught in all?
- b) Manuel was told to make 10 rows of 6 cans each. How many cans were there in all?
- c) For graduation, there were 10 rows of 100 chairs each. How many chairs were there altogether?

- d) In the cafeteria, there are 9 tables with 8 chairs at each table. How many chairs are there in all?

- e) Find the area of the rug. Remember to include the units of measure.

9 metres

7 metres



- f) Find the area of the photograph.

7 centimetres



10 centimetres

Answers to Unit 4 Review**A.**

- | | | | | | |
|-------|-------|-------|-------|-------|-------|
| a) 0 | b) 36 | c) 15 | d) 6 | e) 24 | f) 36 |
| g) 28 | h) 64 | i) 54 | j) 30 | k) 45 | l) 81 |
| m) 18 | n) 32 | o) 48 | p) 56 | | |

B.

- | | | | | | |
|-------|-------|-------|-------|-------|-------|
| a) 49 | b) 63 | c) 18 | d) 16 | e) 12 | f) 35 |
| g) 40 | h) 24 | | | | |

C.

- | | | | | | |
|--------|----------|----------|-------|----------|----------|
| a) 40 | b) 700 | c) 500 | d) 10 | e) 8 000 | f) 90 |
| g) 800 | h) 7 000 | i) 2 000 | j) 60 | k) 900 | l) 4 000 |

D.

- | | | |
|--------------|---------------------|--------------------------|
| a) 56 fish | b) 60 cans | c) 1 000 chairs |
| d) 72 chairs | e) 63 square metres | f) 70 square centimetres |

