



NA15 Multiplication facts 2, 3

Multiplication facts are very important because they are used in many other areas of maths. Practise them often so that you can easily remember each fact when you need it. Just like addition facts, multiplication facts have 'turnarounds'. When you learn one fact, you have really learned two!



Twos facts (x 2)	$\begin{array}{r} 0 \\ \times 2 \\ \hline 0 \end{array}$	$\begin{array}{r} 1 \\ \times 2 \\ \hline 2 \end{array}$	$\begin{array}{r} 2 \\ \times 2 \\ \hline 4 \end{array}$	$\begin{array}{r} 3 \\ \times 2 \\ \hline 6 \end{array}$	$\begin{array}{r} 4 \\ \times 2 \\ \hline 8 \end{array}$	$\begin{array}{r} 5 \\ \times 2 \\ \hline 10 \end{array}$	$\begin{array}{r} 6 \\ \times 2 \\ \hline 12 \end{array}$	$\begin{array}{r} 7 \\ \times 2 \\ \hline 14 \end{array}$	$\begin{array}{r} 8 \\ \times 2 \\ \hline 16 \end{array}$	$\begin{array}{r} 9 \\ \times 2 \\ \hline 18 \end{array}$	Related to the addition doubles.
Threes facts (x 3)	$\begin{array}{r} 0 \\ \times 3 \\ \hline 0 \end{array}$	$\begin{array}{r} 1 \\ \times 3 \\ \hline 3 \end{array}$	$\begin{array}{r} 2 \\ \times 3 \\ \hline 6 \end{array}$	$\begin{array}{r} 3 \\ \times 3 \\ \hline 9 \end{array}$	$\begin{array}{r} 4 \\ \times 3 \\ \hline 12 \end{array}$	$\begin{array}{r} 5 \\ \times 3 \\ \hline 15 \end{array}$	$\begin{array}{r} 6 \\ \times 3 \\ \hline 18 \end{array}$	$\begin{array}{r} 7 \\ \times 3 \\ \hline 21 \end{array}$	$\begin{array}{r} 8 \\ \times 3 \\ \hline 24 \end{array}$	$\begin{array}{r} 9 \\ \times 3 \\ \hline 27 \end{array}$	Count by threes.

Try this

1 Complete these multiplication facts as quickly as you can. Try not to look them up.

a	b	c	d	e	f	g	h	i	j
$\begin{array}{r} 3 \\ \times 2 \\ \hline \square \end{array}$	$\begin{array}{r} 5 \\ \times 2 \\ \hline \square \end{array}$	$\begin{array}{r} 6 \\ \times 2 \\ \hline \square \end{array}$	$\begin{array}{r} 1 \\ \times 2 \\ \hline \square \end{array}$	$\begin{array}{r} 8 \\ \times 2 \\ \hline \square \end{array}$	$\begin{array}{r} 4 \\ \times 2 \\ \hline \square \end{array}$	$\begin{array}{r} 7 \\ \times 2 \\ \hline \square \end{array}$	$\begin{array}{r} 0 \\ \times 2 \\ \hline \square \end{array}$	$\begin{array}{r} 2 \\ \times 2 \\ \hline \square \end{array}$	$\begin{array}{r} 9 \\ \times 2 \\ \hline \square \end{array}$
k	l	m	n	o	p	q	r	s	t
$\begin{array}{r} 4 \\ \times 3 \\ \hline \square \end{array}$	$\begin{array}{r} 0 \\ \times 3 \\ \hline \square \end{array}$	$\begin{array}{r} 2 \\ \times 3 \\ \hline \square \end{array}$	$\begin{array}{r} 5 \\ \times 3 \\ \hline \square \end{array}$	$\begin{array}{r} 7 \\ \times 3 \\ \hline \square \end{array}$	$\begin{array}{r} 9 \\ \times 3 \\ \hline \square \end{array}$	$\begin{array}{r} 8 \\ \times 3 \\ \hline \square \end{array}$	$\begin{array}{r} 1 \\ \times 3 \\ \hline \square \end{array}$	$\begin{array}{r} 3 \\ \times 3 \\ \hline \square \end{array}$	$\begin{array}{r} 6 \\ \times 3 \\ \hline \square \end{array}$

- 2 Turn to **Tear-out II:**
 Resources on page 199 and cut out the section for **NA15 Multiplication facts 2, 3.**
 Carefully separate the 16 rectangles. Each rectangle is the answer to a multiplication fact on the grid. Complete the picture by gluing each answer on top of its multiplication fact.

			$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$		
		$\begin{array}{r} 2 \\ \times 1 \\ \hline \end{array}$		$\begin{array}{r} 6 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$	
		$\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 10 \\ \times 3 \\ \hline \end{array}$		$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$	
		$\begin{array}{r} 10 \\ \times 2 \\ \hline \end{array}$		$\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$		
	$\begin{array}{r} 0 \\ \times 3 \\ \hline \end{array}$	$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$			
		$\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$	$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$			
		$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$				

- 3 Write a multiplication fact for each multiplication picture. Draw your own multiplication pictures. Draw boxes, bags, jars, packets or cartons of objects, then write the multiplication fact.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Challenge


Double double trouble: These numbers have already been doubled and doubled again. Find the original number by halving and halving again. 12 40 28 44 16
 84 20 100 60 500



NA16 Multiplication facts 5, 10

Remember that **multiplication facts** must be practised often so that you can quickly recall each fact. You have already learned some of these facts before when you practised the twos facts and the threes facts.



Fives facts (x 5)	$\begin{array}{r} 0 \\ \times 5 \\ \hline 0 \end{array}$	$\begin{array}{r} 1 \\ \times 5 \\ \hline 5 \end{array}$	$\begin{array}{r} 2 \\ \times 5 \\ \hline 10 \end{array}$	$\begin{array}{r} 3 \\ \times 5 \\ \hline 15 \end{array}$	$\begin{array}{r} 4 \\ \times 5 \\ \hline 20 \end{array}$	$\begin{array}{r} 5 \\ \times 5 \\ \hline 25 \end{array}$	$\begin{array}{r} 6 \\ \times 5 \\ \hline 30 \end{array}$	$\begin{array}{r} 7 \\ \times 5 \\ \hline 35 \end{array}$	$\begin{array}{r} 8 \\ \times 5 \\ \hline 40 \end{array}$	$\begin{array}{r} 9 \\ \times 5 \\ \hline 45 \end{array}$	Count in fives on the clock. 
Tens facts (x 10)	$\begin{array}{r} 0 \\ \times 10 \\ \hline 0 \end{array}$	$\begin{array}{r} 1 \\ \times 10 \\ \hline 10 \end{array}$	$\begin{array}{r} 2 \\ \times 10 \\ \hline 20 \end{array}$	$\begin{array}{r} 3 \\ \times 10 \\ \hline 30 \end{array}$	$\begin{array}{r} 4 \\ \times 10 \\ \hline 40 \end{array}$	$\begin{array}{r} 5 \\ \times 10 \\ \hline 50 \end{array}$	$\begin{array}{r} 6 \\ \times 10 \\ \hline 60 \end{array}$	$\begin{array}{r} 7 \\ \times 10 \\ \hline 70 \end{array}$	$\begin{array}{r} 8 \\ \times 10 \\ \hline 80 \end{array}$	$\begin{array}{r} 9 \\ \times 10 \\ \hline 90 \end{array}$	Add a zero.

Try this

1 Complete these multiplication facts as quickly as you can. Try not to look them up.

a $\begin{array}{r} 5 \\ \times 5 \\ \hline \square \end{array}$	b $\begin{array}{r} 7 \\ \times 5 \\ \hline \square \end{array}$	c $\begin{array}{r} 4 \\ \times 5 \\ \hline \square \end{array}$	d $\begin{array}{r} 2 \\ \times 5 \\ \hline \square \end{array}$	e $\begin{array}{r} 1 \\ \times 5 \\ \hline \square \end{array}$	f $\begin{array}{r} 9 \\ \times 5 \\ \hline \square \end{array}$	g $\begin{array}{r} 3 \\ \times 5 \\ \hline \square \end{array}$	h $\begin{array}{r} 0 \\ \times 5 \\ \hline \square \end{array}$	i $\begin{array}{r} 6 \\ \times 5 \\ \hline \square \end{array}$	j $\begin{array}{r} 8 \\ \times 5 \\ \hline \square \end{array}$
k $\begin{array}{r} 2 \\ \times 10 \\ \hline \square \end{array}$	l $\begin{array}{r} 5 \\ \times 10 \\ \hline \square \end{array}$	m $\begin{array}{r} 1 \\ \times 10 \\ \hline \square \end{array}$	n $\begin{array}{r} 0 \\ \times 10 \\ \hline \square \end{array}$	o $\begin{array}{r} 3 \\ \times 10 \\ \hline \square \end{array}$	p $\begin{array}{r} 4 \\ \times 10 \\ \hline \square \end{array}$	q $\begin{array}{r} 7 \\ \times 10 \\ \hline \square \end{array}$	r $\begin{array}{r} 8 \\ \times 10 \\ \hline \square \end{array}$	s $\begin{array}{r} 6 \\ \times 10 \\ \hline \square \end{array}$	t $\begin{array}{r} 9 \\ \times 10 \\ \hline \square \end{array}$

2 Use the colour code to colour each space.
 For example the 5×7 on the hat is 35, so it should be coloured dark brown.

0	10	purple	35	50	dark brown
5	20	green	60	70	blue
15	30	yellow	80	90	light brown
25	40	red			



★ Challenge

Fab fives: Did you notice that the fives facts always end with a five?
 This pattern keeps going, no matter how large the number is. Circle the large fives facts.
 There are ten to find. Then, write ten more of your own.

- | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 235 | 810 | 547 | 690 | 115 | 90 | 202 | 443 | 700 | 556 |
| 711 | 365 | 95 | 809 | 433 | 387 | 605 | 982 | 939 | 420 |



NA17 Multiply by 10

When a number is **multiplied by 10**, the number moves to the next highest place. Ones move to tens, and tens move to hundreds. Look carefully at these examples to find the pattern.



Tip

Be careful with an adding zeros strategy, which only works well with whole numbers like 45×10 . The place value strategy continues to work with decimal fractions like 4.5×10 .

1. H t Ones

<input type="text"/>	<input type="text"/>	5
----------------------	----------------------	---

$\times 10$

H t Ones

<input type="text"/>	5	<input type="text"/>
----------------------	---	----------------------

$$5 \times 10 = 50$$

2. H t Ones

<input type="text"/>	<input type="text"/>	8
----------------------	----------------------	---

$\times 10$

H t Ones

<input type="text"/>	8	<input type="text"/>
----------------------	---	----------------------

$$8 \times 10 = 80$$

3. H t Ones

<input type="text"/>	<input type="text"/>	2
----------------------	----------------------	---

$\times 10$

H t Ones

<input type="text"/>	2	<input type="text"/>
----------------------	---	----------------------

$$2 \times 10 = 20$$

4. H t Ones

<input type="text"/>	1	7
----------------------	---	---

$\times 10$

H t Ones

1	7	<input type="text"/>
---	---	----------------------

$$17 \times 10 = 170$$

5. H t Ones

<input type="text"/>	4	0
----------------------	---	---

$\times 10$

H t Ones

4	0	<input type="text"/>
---	---	----------------------

$$40 \times 10 = 400$$

Try this

1 Multiply by ten.

a $4 \times 10 =$

b $9 \times 10 =$

c $7 \times 10 =$

d $89 \times 10 =$

e $44 \times 10 =$

f $28 \times 10 =$

g $10 \times 10 =$

h $90 \times 10 =$

i $70 \times 10 =$

j $315 \times 10 =$

k $288 \times 10 =$

l $166 \times 10 =$

2 Write the missing $\times 10$ multiplication facts.

- | | | | | | | | | |
|---|----------------------|--------|---|----------------------|--------|---|----------------------|--------|
| a | <input type="text"/> | = 80 | b | <input type="text"/> | = 20 | c | <input type="text"/> | = 50 |
| d | <input type="text"/> | = 140 | e | <input type="text"/> | = 990 | f | <input type="text"/> | = 360 |
| g | <input type="text"/> | = 300 | h | <input type="text"/> | = 800 | i | <input type="text"/> | = 1000 |
| j | <input type="text"/> | = 5020 | k | <input type="text"/> | = 7000 | l | <input type="text"/> | = 4000 |

3 Each archer has hit their target with three arrows. Their score below has been multiplied by 10. Whose score is whose?



Will

Mia

Jack

Ruby

Pippa

a

70

b

110

c

150

d

190

e

210

Problem solving task

Sports carnival buses: Ten buses carry 55 passengers each to a school sports carnival. The buses are 13 metres long and 2 metres wide. The bus fare for each passenger is \$10.

- a What is the total number of passengers carried?
- b How much is the total of all the bus fares?

Use the space provided in *iMaths 3 Tracker Book* to work out your answers.

Challenge

Divide by 10: When a number is divided by 10, the number moves to the next **lowest** place. Write all of Question 2 again, but this time write them as division facts. For example: a $80 \div 10 = 8$