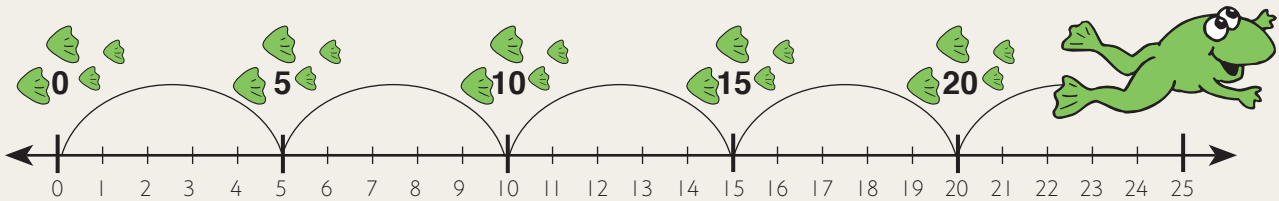




NA5 Multiples 3, 4, 5, 6, 7, 8, 9

To find the **multiples** of a number, we start at zero and make jumps the size of the number. My friend will show the multiples of 5. Here she goes!



Multiples of 5: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50...

Here are some more sets of multiples.

Multiples of 2: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20...

Multiples of 3: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30...

Multiples of 4: 4, 8, 12, 16, 20, 24, 28, 32, 36, 40...

Try this

1 Write the missing multiples. Use a number line if you need to.

a Multiples of 6: 6, 12, 18, , , , , , , 60...

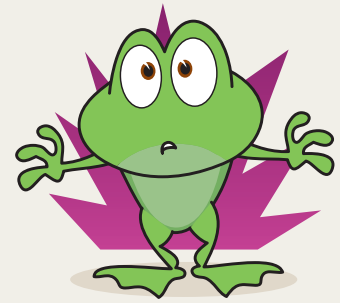
b Multiples of 7: 7, 14, 21, , , , , , , 70...

c Multiples of 8: 8, 16, 24, , , , , , , 80...

d Multiples of 9: 9, 18, 27, , , , , , , 90...

e Multiples of 10: 10, 20, 30, , , , , , , 100...

What's red and green, and goes 200 kilometres an hour?



2 To solve the riddle, find which of the two bold numbers has the most multiples. In the first example, the numbers are mostly multiples of 3, so **A** is written in the first box at the bottom of the page.

<p>a</p> <table style="margin-left: 40px;"> <tr><td>6</td><td>4</td></tr> <tr><td>11</td><td>18</td><td>12</td></tr> <tr><td>9</td><td>25</td></tr> </table> <p>Multiples of 3 A Multiples of 5 B</p>	6	4	11	18	12	9	25	<p>b</p> <table style="margin-left: 40px;"> <tr><td>8</td><td>7</td></tr> <tr><td>11</td><td>15</td><td>21</td></tr> <tr><td>10</td><td>14</td><td>9</td></tr> </table> <p>Multiples of 5 E Multiples of 7 F</p>	8	7	11	15	21	10	14	9	<p>c</p> <table style="margin-left: 40px;"> <tr><td>30</td><td>16</td></tr> <tr><td>8</td><td>36</td><td>12</td></tr> <tr><td>60</td><td>5</td></tr> </table> <p>Multiples of 8 Q Multiples of 6 R</p>	30	16	8	36	12	60	5	<p>d</p> <table style="margin-left: 40px;"> <tr><td>8</td><td>4</td></tr> <tr><td>6</td><td>7</td></tr> <tr><td>21</td><td>9</td><td>12</td></tr> </table> <p>Multiples of 2 O Multiples of 7 P</p>	8	4	6	7	21	9	12	<p>e</p> <table style="margin-left: 40px;"> <tr><td>25</td><td>16</td></tr> <tr><td>10</td><td>4</td></tr> <tr><td>45</td><td>13</td><td>30</td></tr> </table> <p>Multiples of 4 F Multiples of 5 G</p>	25	16	10	4	45	13	30			
6	4																																										
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<p>f</p> <table style="margin-left: 40px;"> <tr><td>27</td><td>12</td></tr> <tr><td>32</td><td>16</td><td>9</td></tr> <tr><td>20</td><td>4</td><td>18</td></tr> </table> <p>Multiples of 4 I Multiples of 9 J</p>	27	12	32	16	9	20	4	18	<p>g</p> <table style="margin-left: 40px;"> <tr><td>13</td><td>21</td></tr> <tr><td>40</td><td>5</td><td>32</td></tr> <tr><td>7</td><td>24</td><td>8</td></tr> </table> <p>Multiples of 8 N Multiples of 9 O</p>	13	21	40	5	32	7	24	8	<p>h</p> <table style="margin-left: 40px;"> <tr><td>80</td><td>27</td></tr> <tr><td>30</td><td>50</td><td>10</td></tr> <tr><td>54</td><td>70</td><td>9</td></tr> </table> <p>Multiples of 9 Z Multiples of 10 A</p>	80	27	30	50	10	54	70	9	<p>i</p> <table style="margin-left: 40px;"> <tr><td>21</td><td>64</td></tr> <tr><td>9</td><td>15</td></tr> <tr><td>40</td><td>17</td><td>12</td></tr> </table> <p>Multiples of 3 B Multiples of 8 C</p>	21	64	9	15	40	17	12	<p>j</p> <table style="margin-left: 40px;"> <tr><td>10</td><td>9</td></tr> <tr><td>18</td><td>35</td><td>27</td></tr> <tr><td>72</td><td>54</td><td>63</td></tr> </table> <p>Multiples of 5 K Multiples of 9 L</p>	10	9	18	35	27	72	54	63
27	12																																										
32	16	9																																									
20	4	18																																									
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40	5	32																																									
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<p>k</p> <table style="margin-left: 40px;"> <tr><td>2</td><td>4</td></tr> <tr><td>8</td><td>6</td><td>27</td></tr> <tr><td>45</td><td>14</td><td>11</td></tr> </table> <p>Multiples of 9 D Multiples of 2 E</p>	2	4	8	6	27	45	14	11	<p>l</p> <table style="margin-left: 40px;"> <tr><td>36</td><td>15</td></tr> <tr><td>10</td><td>12</td></tr> <tr><td>5</td><td>20</td><td>21</td></tr> </table> <p>Multiples of 5 N Multiples of 6 O</p>	36	15	10	12	5	20	21	<p>m</p> <table style="margin-left: 40px;"> <tr><td>16</td><td>30</td></tr> <tr><td>50</td><td>23</td><td>90</td></tr> <tr><td>3</td><td>17</td><td>9</td></tr> </table> <p>Multiples of 4 C Multiples of 10 D</p>	16	30	50	23	90	3	17	9	<p>n</p> <table style="margin-left: 40px;"> <tr><td>32</td><td>19</td></tr> <tr><td>54</td><td>56</td><td>64</td></tr> <tr><td>24</td><td>48</td><td>29</td></tr> </table> <p>Multiples of 8 E Multiples of 9 F</p>	32	19	54	56	64	24	48	29	<p>o</p> <table style="margin-left: 40px;"> <tr><td>35</td><td>2</td></tr> <tr><td>14</td><td>9</td><td>7</td></tr> <tr><td>42</td><td>18</td></tr> </table> <p>Multiples of 7 R Multiples of 3 S</p>	35	2	14	9	7	42	18	
2	4																																										
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35	2																																										
14	9	7																																									
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a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
A														

Problem solving task

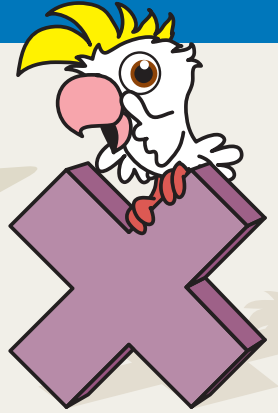
Leap Frog: Frog and Toad are leaping down the 24 steps to the garden pond. Frog jumps two steps at a time 0, 2, 4... and so on. Toad jumps three steps at a time 0, 3, 6... Which of the 24 steps will both Frog and Toad land on? Use the space provided in *iMaths 4 Tracker Book* to work out your answer.

Challenge

Many multiples: Can you find the two numbers less than 30 that are multiples of 1, 2, 3, 4, 6 and 12?



NA6 Multiplication facts 2, 3, 5, 10



Multiplication facts are a very important part of your maths knowledge. They are used in many other areas of maths so learn them well. Practise them often so you can easily recall each fact when you need it. Just like addition facts, multiplication facts have 'turnarounds'. When you learn one fact, you have really learnt two!

Here is the recommended sequence for learning the first multiplication facts:

Twos facts (x 2)	$\frac{0}{x2}$	$\frac{1}{x2}$	$\frac{2}{x2}$	$\frac{3}{x2}$	$\frac{4}{x2}$	$\frac{5}{x2}$	$\frac{6}{x2}$	$\frac{7}{x2}$	$\frac{8}{x2}$	$\frac{9}{x2}$	Related to the addition doubles.
Threes facts (x 3)	$\frac{0}{x3}$	$\frac{1}{x3}$	$\frac{2}{x3}$	$\frac{3}{x3}$	$\frac{4}{x3}$	$\frac{5}{x3}$	$\frac{6}{x3}$	$\frac{7}{x3}$	$\frac{8}{x3}$	$\frac{9}{x3}$	
Fives facts (x 5)	$\frac{0}{x5}$	$\frac{1}{x5}$	$\frac{2}{x5}$	$\frac{3}{x5}$	$\frac{4}{x5}$	$\frac{5}{x5}$	$\frac{6}{x5}$	$\frac{7}{x5}$	$\frac{8}{x5}$	$\frac{9}{x5}$	Count in fives on the clock.
Tens facts (x 10)	$\frac{0}{x10}$	$\frac{1}{x10}$	$\frac{2}{x10}$	$\frac{3}{x10}$	$\frac{4}{x10}$	$\frac{5}{x10}$	$\frac{6}{x10}$	$\frac{7}{x10}$	$\frac{8}{x10}$	$\frac{9}{x10}$	Add a zero to the number.

Try this

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

a $\frac{5}{x2}$ <input type="text"/>	b $\frac{3}{x1}$ <input type="text"/>	c $\frac{7}{x10}$ <input type="text"/>	d $\frac{7}{x5}$ <input type="text"/>	e $\frac{2}{x4}$ <input type="text"/>	f $\frac{3}{x3}$ <input type="text"/>	g $\frac{4}{x10}$ <input type="text"/>	h $\frac{9}{x5}$ <input type="text"/>	i $\frac{8}{x2}$ <input type="text"/>	j $\frac{7}{x3}$ <input type="text"/>
--	--	---	--	--	--	---	--	--	--

k $\frac{6}{x5}$ <input type="text"/>	l $\frac{9}{x2}$ <input type="text"/>	m $\frac{6}{x10}$ <input type="text"/>	n $\frac{5}{x4}$ <input type="text"/>	o $\frac{6}{x2}$ <input type="text"/>	p $\frac{4}{x3}$ <input type="text"/>	q $\frac{8}{x5}$ <input type="text"/>	r $\frac{7}{x10}$ <input type="text"/>	s $\frac{7}{x2}$ <input type="text"/>	t $\frac{5}{x3}$ <input type="text"/>
--	--	---	--	--	--	--	---	--	--

Stegosaurus was the dinosaur with big bony plates on its back. It grew to 8 metres long and had a tiny brain the size of a walnut!

2 Complete the dot-to-dot.

You will need to use multiplication facts to work out some dots.

3 Did you notice that the fives facts always end with a zero or a five? This pattern keeps going, no matter how large the numbers become.

a Circle the fives facts below. There are 10 to find.

- | | | | | |
|-----|-----|-----|-----|-----|
| 825 | 610 | 337 | 590 | 165 |
| 411 | 965 | 75 | 908 | 220 |
| 300 | 105 | 223 | 50 | 446 |

b Write 10 more five facts of your own.



Problem solving task

Birthday party: Emma's birthday party is at Baby Animal World. The entry fee was \$5 for adults and \$3 for children. How many adults and children went to Baby Animal World if the total of all entrance fees for Emma's party was \$30?

adults children

Use the space provided in *iMaths 4 Tracker Book* to work out your answer.



Challenge

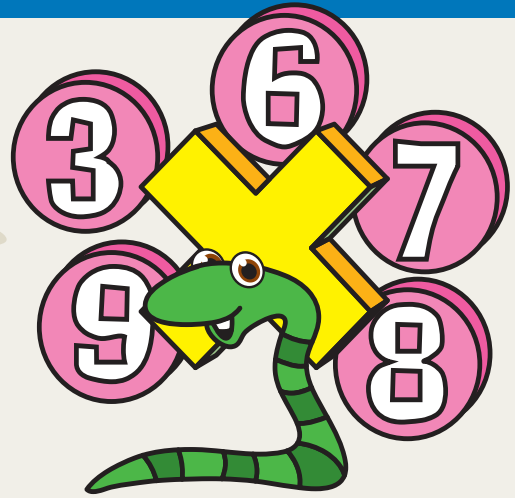
Five more and five less: Write the numbers that are five more and five less than 1 000, 2 000, 3 000, 9 000 and 10 000.



NA7 Multiplication facts 4, 6, 8, 9

So far you have been learning and practising the twos, threes, fives and tens facts and their turnarounds.

In these next sets there are 28 new facts. Practise them often so that you can easily recall each fact when you need it.



Fours facts (x 4)	$\begin{array}{r} 0 \\ \times 4 \\ \hline 0 \end{array}$	$\begin{array}{r} 1 \\ \times 4 \\ \hline 4 \end{array}$	$\begin{array}{r} 2 \\ \times 4 \\ \hline 8 \end{array}$	$\begin{array}{r} 3 \\ \times 4 \\ \hline 12 \end{array}$	$\begin{array}{r} 4 \\ \times 4 \\ \hline 16 \end{array}$	$\begin{array}{r} 5 \\ \times 4 \\ \hline 20 \end{array}$	$\begin{array}{r} 6 \\ \times 4 \\ \hline 24 \end{array}$	$\begin{array}{r} 7 \\ \times 4 \\ \hline 28 \end{array}$	$\begin{array}{r} 8 \\ \times 4 \\ \hline 32 \end{array}$	$\begin{array}{r} 9 \\ \times 4 \\ \hline 36 \end{array}$
Sixes facts (x 6)	$\begin{array}{r} 0 \\ \times 6 \\ \hline 0 \end{array}$	$\begin{array}{r} 1 \\ \times 6 \\ \hline 6 \end{array}$	$\begin{array}{r} 2 \\ \times 6 \\ \hline 12 \end{array}$	$\begin{array}{r} 3 \\ \times 6 \\ \hline 18 \end{array}$	$\begin{array}{r} 4 \\ \times 6 \\ \hline 24 \end{array}$	$\begin{array}{r} 5 \\ \times 6 \\ \hline 30 \end{array}$	$\begin{array}{r} 6 \\ \times 6 \\ \hline 36 \end{array}$	$\begin{array}{r} 7 \\ \times 6 \\ \hline 42 \end{array}$	$\begin{array}{r} 8 \\ \times 6 \\ \hline 48 \end{array}$	$\begin{array}{r} 9 \\ \times 6 \\ \hline 54 \end{array}$
Eights facts (x 8)	$\begin{array}{r} 0 \\ \times 8 \\ \hline 0 \end{array}$	$\begin{array}{r} 1 \\ \times 8 \\ \hline 8 \end{array}$	$\begin{array}{r} 2 \\ \times 8 \\ \hline 16 \end{array}$	$\begin{array}{r} 3 \\ \times 8 \\ \hline 24 \end{array}$	$\begin{array}{r} 4 \\ \times 8 \\ \hline 32 \end{array}$	$\begin{array}{r} 5 \\ \times 8 \\ \hline 40 \end{array}$	$\begin{array}{r} 6 \\ \times 8 \\ \hline 48 \end{array}$	$\begin{array}{r} 7 \\ \times 8 \\ \hline 56 \end{array}$	$\begin{array}{r} 8 \\ \times 8 \\ \hline 64 \end{array}$	$\begin{array}{r} 9 \\ \times 8 \\ \hline 72 \end{array}$
Nines facts (x 9)	$\begin{array}{r} 0 \\ \times 9 \\ \hline 0 \end{array}$	$\begin{array}{r} 1 \\ \times 9 \\ \hline 9 \end{array}$	$\begin{array}{r} 2 \\ \times 9 \\ \hline 18 \end{array}$	$\begin{array}{r} 3 \\ \times 9 \\ \hline 27 \end{array}$	$\begin{array}{r} 4 \\ \times 9 \\ \hline 36 \end{array}$	$\begin{array}{r} 5 \\ \times 9 \\ \hline 45 \end{array}$	$\begin{array}{r} 6 \\ \times 9 \\ \hline 54 \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array}$	$\begin{array}{r} 8 \\ \times 9 \\ \hline 72 \end{array}$	$\begin{array}{r} 9 \\ \times 9 \\ \hline 81 \end{array}$

Try this

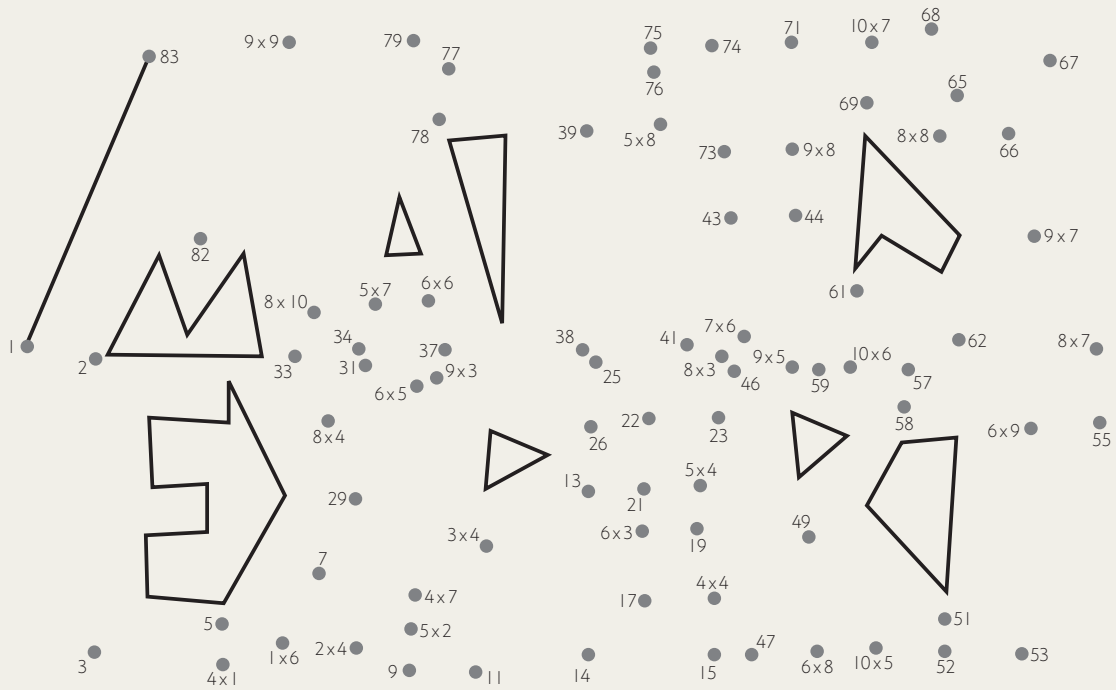
1 Complete these multiplication facts as quickly as you can. Try not to look them up.

a $\begin{array}{r} 6 \\ \times 6 \\ \hline \square \end{array}$	b $\begin{array}{r} 4 \\ \times 4 \\ \hline \square \end{array}$	c $\begin{array}{r} 9 \\ \times 4 \\ \hline \square \end{array}$	d $\begin{array}{r} 9 \\ \times 8 \\ \hline \square \end{array}$	e $\begin{array}{r} 8 \\ \times 8 \\ \hline \square \end{array}$	f $\begin{array}{r} 4 \\ \times 3 \\ \hline \square \end{array}$	g $\begin{array}{r} 8 \\ \times 3 \\ \hline \square \end{array}$	h $\begin{array}{r} 4 \\ \times 6 \\ \hline \square \end{array}$	i $\begin{array}{r} 6 \\ \times 3 \\ \hline \square \end{array}$	j $\begin{array}{r} 8 \\ \times 6 \\ \hline \square \end{array}$
--	--	--	--	--	--	--	--	--	--

k $\begin{array}{r} 9 \\ \times 9 \\ \hline \square \end{array}$	l $\begin{array}{r} 7 \\ \times 6 \\ \hline \square \end{array}$	m $\begin{array}{r} 9 \\ \times 8 \\ \hline \square \end{array}$	n $\begin{array}{r} 7 \\ \times 9 \\ \hline \square \end{array}$	o $\begin{array}{r} 8 \\ \times 0 \\ \hline \square \end{array}$	p $\begin{array}{r} 9 \\ \times 6 \\ \hline \square \end{array}$	q $\begin{array}{r} 7 \\ \times 4 \\ \hline \square \end{array}$	r $\begin{array}{r} 8 \\ \times 4 \\ \hline \square \end{array}$	s $\begin{array}{r} 9 \\ \times 7 \\ \hline \square \end{array}$	t $\begin{array}{r} 8 \\ \times 5 \\ \hline \square \end{array}$
--	--	--	--	--	--	--	--	--	--

What are you? If you solve this puzzle you will be a...

2 To find out, complete the dot-to-dot below. You will need to use multiplication facts to work out some dots.



3 Complete this multiplication grid.

X	2	5	4	0	1	9	8	7	3	6
4	8									
6										
8										
9										



Problem solving task

Super savings: What is the total amount of money saved by all the boys?

Brad saved \$7.

Baz saved 8 times Bill's amount.

Bill saved 3 times Ben's amount.

Buddy saved 9 times Ben's amount.

Bob saved 6 times Bill's amount.

Boss saved 6 times Brad's amount.

Ben saved \$3.

Use the space provided in *iMaths 4 Tracker Book* to work out your answer.



Challenge

Nines facts

$0 \times 9 = 0$

$1 \times 9 = 9$

-
-
-

Nines patterns: The nines multiplication facts contain many patterns. Write the facts then look down the answer list to discover a counting-by-ones pattern. Look up the answer list to find another pattern. Try adding the digits in every answer. What do you discover? Can you find more patterns?