5.2 Connecting 2 ×, 4 × and 8 ×

Exercise 5.2

Focus

1 Which multiplication fact is represented below?

four four four

4 × 3 = 12

Tip
How many fours can you see?

H.W

2 Write the multiplication table for 4, up to 4 × 10 = 40.

4 x 1 = 04
4 x 2 = 08
4 x 3 = 12
H.W 4 x 4 = 16
4 x 5 = 20
4 x 6 = 24
4 x 7 = 28
4 x 8 = 32
4 x 9 = 36
4 x 10 = 40

3 Colour all the multiples of 8.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

4 There are six spiders on a plant. Write and solve the multiplication fact to find out how many spiders' legs are on the plant.

6 x 8 = 48



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the next ...
the rest of the seque...

6 + 4 = 10

10 + 4 = 14

14 + 4 = 18

18 + 4 = 22.

All the answers are even numbers becaus
they have 0, 2, 4, 6 or 8 in the ones place.

Answer: 2, 6, 10, 14, 18, 22

H.W 5 **The term-to-term rule is 'add 4'.**

Start at 3. What are the next five numbers in the sequence?

3, 7, 11, 15, 19, 23

Describe the numbers you have written using words such as odd and even.

All these numbers are odd.

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Practice

6 What is the third multiple of 4? 12

What is the 7th multiple of 4? 28

7 What are the next five multiples of 4?

40, 44, 48, 52, 56, 60

8 Describe the pattern of the multiples of 4.

4, 8, 12, 16, 20, 24, 28, 32, 36, 40

9 What is the fifth multiple of 8? 40

What is the 9th multiple of 8? 72

10 Write the missing multiplication facts.

2 × 4 = 8	double →	4 × 4 = 16	double →	8 × 4 = 32
2 × 2 = 4	double →	4 × 2 = 8	double →	8 × 2 = 16
2 × 8 = 16	← halve	4 × 8 = 32	← halve	8 × 8 = 64
2 × 7 = 14	← halve	4 × 7 = 28	← halve	8 × 7 = 56

Tip

Remember to change the group size and the product in the same way to find the new multiplication table fact. The number of groups doesn't change.

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11 What is the term-to-term rule in the
Find the missing numbers.

7, 15, ☐, ☐, ☐, ☐

The term-to-term rule is _____

Describe the numbers you have written using words such as odd and even.

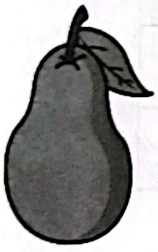
_____

Challenge

12 Complete the multiplication grid.

×	2	4	8
3	6	12	24
5	10	20	40
6	12	24	48
9	18	36	72

13 A pear costs 8c.
Write the multiplication fact that tells you the cost of seven pears.



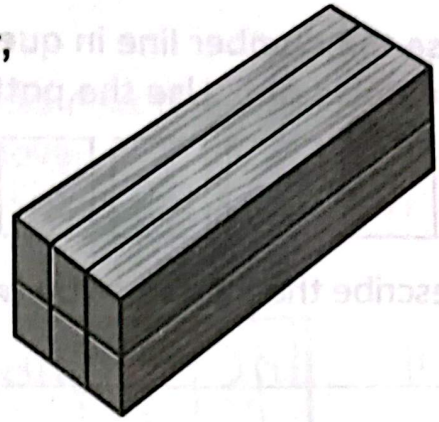
8c x 7 = 56c

14 A white T-shirt costs $4.
Write the multiplication fact that tells you the cost of 8 T-shirts.



$4 x 8 = $32

15 Tara's father bought six pieces of timber, each measuring 4 metres long. What is the total length of timber that Tara's father bought?



4m × 6 = 24 m.

16 Choose a term-to-term rule, a start number and how many terms to record. Write your sequence.

13 | Nov

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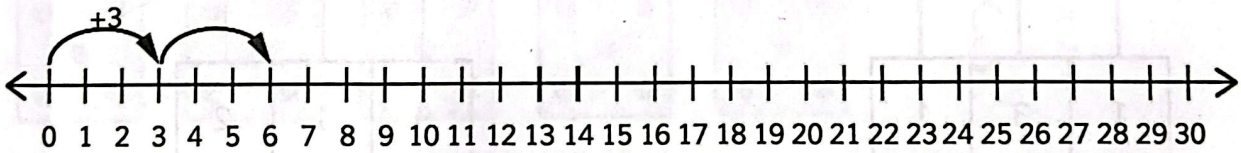
5.3 Connecting 3 ×, 6 × and 9 ×

Exercise 5.3

counting stick

Focus

1 Use the number line to help you find the multiples of 3.



3, 6, 9, 12, 15, 18, 21, 24, 27, 30

Describe the numbers you have written using words such as odd and even.

6, 12, 18, 24, 30 are even. 3, 9, 21, 27 are odd.

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2 Use the number line in question 1 to help you find the multiples of 6. Use the pattern to help you continue to 60.

6, 12, 18, 24, 30, 36, 42, 48, 54, 60

Describe the numbers you have written using words such as odd and

All the numbers are even

3 Write the missing multiplication facts.

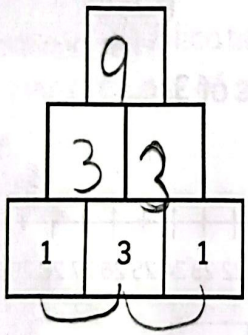
3 × 2 = 6	double →	6 x 2 = 12
3 × 6 = 18	double →	6 x 6 = 36
3 x 4 = 12	← halve	6 × 4 = 24
3 x 1 = 03	← halve	6 × 1 = 6

Tip

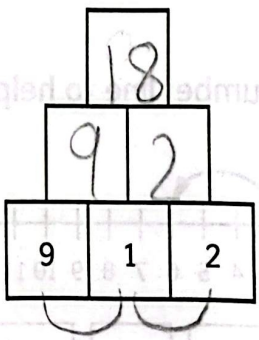
Remember to cha the group size and the product in the same way to find th new multiplication table fact. The number of groups doesn't change.

4 Multiply together the numbers in the bricks next to each other to find the number for the brick above.

a



b



5 The term-to-term rule is add 9.

Start at 8 and write the next five numbers in your sequence.

8, 17, 26, 35, 44, 53

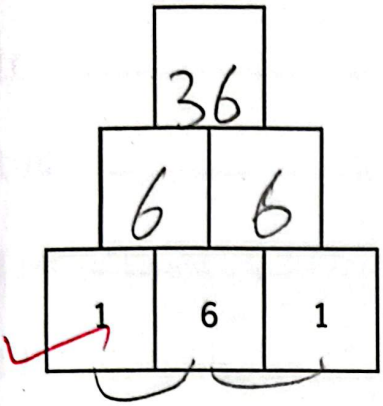
Describe the numbers you have written using words such as odd and even

17, 35, 53 are odd. 8, 44, 26 are even

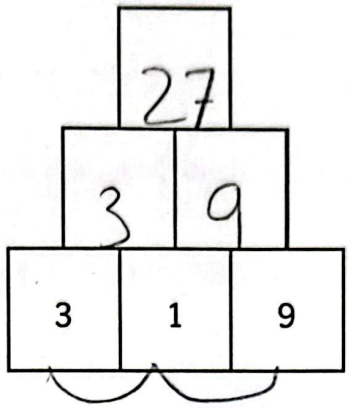
Practice

6 Multiply together the numbers in the bricks next to each other to find the number for the brick above.

a



b

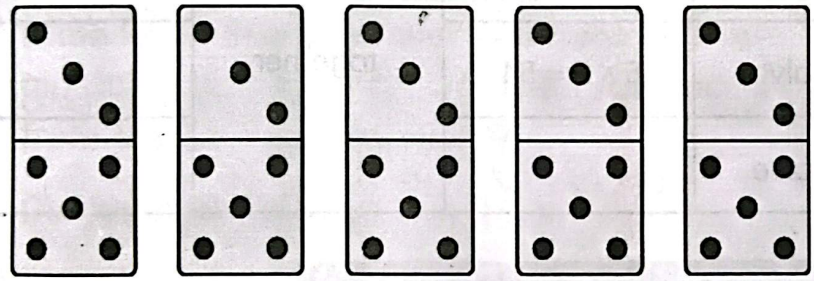


7 Ruby the red kangaroo jumps 9 metres in each jump. How far does she travel with seven jumps? Write the multiplication fact that helps you to find out.



$9 \times 7 = 63$

8



$8 \times 5 = 5 \times 5 + 3 \times 5 = 25 + 15 = 40$

Draw a picture on the next page to show how you can add the multiplication tables for 5 and 4 together to find 9 × 6.

9 **Write the missing multiplication facts.**

3 x 3 = 9	double →	6 × 3 = 18	+ 3× and 6× together →	9 + 18 = 27
3 × 10 = 30	double →	6 x 10 = 60		30 + 60 = 9
3 x 9 = 27	← halve	6 × 9 = 54		27 + 54 = 81
3 × 0 = 0	← halve	6 x 0 = 0		0 + 0 = 0

Tip

Add groups of 3 and groups of 6 together to get groups of 9.

$$\begin{array}{r} 3 \times 3 = 9 \\ +\ 6 \times 3 = 18 \\ \hline 9 \times 3 = 27 \end{array}$$

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