



**MATHS PRACTICE**

**YEAR 5 (2017-18)**

NAME \_\_\_\_\_ YEAR 5 \_\_\_\_\_

**SQUARE NUMBERS**

**Below is a tables square up to 100.**

**Begin by shading the answer to  $1 \times 1$ . Now shade the answer to  $2 \times 2$  and then  $3 \times 3$ .**

**Continue up to  $10 \times 10$ . The first two have been shaded for you.**

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

1. Write down all the numbers that you have shaded.
2. What do you notice about the pattern that you have shaded?

These numbers are called square numbers. They are made by multiplying a number by itself.

Write down the answers to these sums:

3.  $3 \times 3 =$       4.  $5 \times 5 =$       5.  $7 \times 7 =$       6.  $9 \times 9 =$

7.  $2 \times 2 =$       8.  $4 \times 4 =$       9.  $6 \times 6 =$       10.  $8 \times 8 =$

All the answers above are **square numbers**.

## MULTIPLES

You can get a **MULTIPLE** of a whole number by multiplying that number by another whole number.

The answers to all your 'times tables' are multiples.

e.g. 2, 4, 6, 8, 10, 12, 14 etc are all **MULTIPLES** of 2.

3, 6, 9, 12, 15, 18, 21 are all **MULTIPLES OF 3**.

1. Write down the first ten multiples of 5.
2. What do you notice? Look especially at the units digits.
3. Which of these numbers are multiples of 5?

26, 60, 10, 44, 35, 95, 111

4. Write down the first ten multiples of 10.
5. What do you notice? Look especially at the units digit.
6. Which of these numbers are multiples of 10?

49, 30, 212, 120, 50, 99, 200

7. Write down the first ten multiples of 2.
8. What do you notice. Again look especially at the units digits.
9. Write down which of these numbers are multiples of 2:

34, 45, 56, 67, 78, 89, 90

10. Which of these numbers are multiples of both 2 and 5?

44, 50, 24, 30, 26, 10, 11

3.

**Round these amounts to the nearest whole one:**

1. 7.77
2. 6.66
3. 5.55
4. 4.44
5. 3.33
6. 2.22

Getting the idea of these, I hope!



**Round these amounts to the nearest whole one:**

1. 7.842
2. 3.909
3. 4.832
4. 4.588
5. 8.109
6. 7.327

Remember after the decimal point it's tenths, then hundredths, then thousandths!



**What are these amounts to the nearest ten pence (rounding to tenths)?**

1. £8.77
2. £4.51
3. £7.08
4. £12.73
5. £23.36
6. £17.77

Each of your answers should have a nought in the pence column! Check to see that you have!



4.

1. Write in the missing digits:

a)  $\begin{array}{|c|c|c|} \hline 2 & \square & 1 \\ \hline \end{array} + \begin{array}{|c|c|c|} \hline 3 & 7 & \square \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline 6 & 1 & 7 \\ \hline \end{array}$

b)  $\begin{array}{|c|c|c|} \hline \square & 4 & 7 \\ \hline \end{array} + \begin{array}{|c|c|c|} \hline 3 & \square & 9 \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline 7 & 5 & 6 \\ \hline \end{array}$

c)  $\begin{array}{|c|c|c|} \hline \square & 7 & 9 \\ \hline \end{array} + \begin{array}{|c|c|c|} \hline 1 & 8 & \square \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline 4 & 6 & 4 \\ \hline \end{array}$

d)  $\begin{array}{|c|c|c|} \hline \square & 0 & 2 \\ \hline \end{array} + \begin{array}{|c|c|c|} \hline 4 & \square & 6 \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline 7 & 9 & 8 \\ \hline \end{array}$

e)  $\begin{array}{|c|c|c|} \hline 2 & \square & 8 \\ \hline \end{array} + \begin{array}{|c|c|c|} \hline 3 & 6 & \square \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline 6 & 5 & 3 \\ \hline \end{array}$

2. Write in the missing digits:

a)  $\begin{array}{|c|c|c|} \hline 4 & \square & 7 \\ \hline \end{array} - \begin{array}{|c|c|c|} \hline 2 & 3 & 6 \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline \square & 5 & 1 \\ \hline \end{array}$

b)  $\begin{array}{|c|c|c|} \hline 7 & \square & 9 \\ \hline \end{array} - \begin{array}{|c|c|c|} \hline \square & 4 & 6 \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline 4 & 7 & 3 \\ \hline \end{array}$

c)  $\begin{array}{|c|c|c|} \hline \square & 2 & 1 \\ \hline \end{array} - \begin{array}{|c|c|c|} \hline 1 & 2 & 5 \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline 3 & \square & 6 \\ \hline \end{array}$

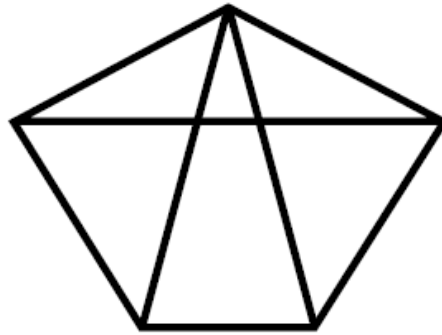
d)  $\begin{array}{|c|c|c|} \hline \square & 8 & 9 \\ \hline \end{array} - \begin{array}{|c|c|c|} \hline 3 & \square & 2 \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline 1 & 1 & 7 \\ \hline \end{array}$

e)  $\begin{array}{|c|c|c|} \hline 6 & 6 & \square \\ \hline \end{array} - \begin{array}{|c|c|c|} \hline 2 & 8 & \square \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline 3 & 8 & 9 \\ \hline \end{array}$

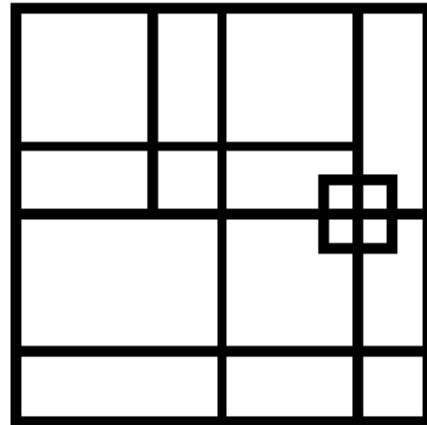
5.

## Spot the shapes 2

1. How many triangles can you count?



2. How many squares can you count?



3. Draw your own diagram to count triangles.  
Don't use too many lines!  
How many triangles can a friend find?  
Can you find more?

6. (i) Put  $<$ ,  $>$  or  $=$

(a)

$$\frac{4}{6} \bigcirc \frac{8}{12}$$

(b)

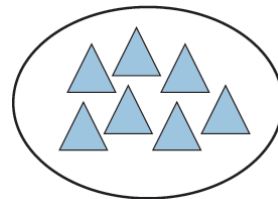
$$\frac{2}{3} \bigcirc \frac{5}{9}$$

(ii) Fill in the boxes.

$$5 \frac{\boxed{\phantom{00}}}{7} = \frac{37}{\boxed{\phantom{00}}}$$

(iii) Rashid is asked to circle  $\frac{1}{6}$  of the triangles he is given.

Here are the triangles he circled.



How many triangles did he begin with? \_\_\_\_\_

(iv) Fill in the missing fractions:

$$\boxed{\phantom{00}} \text{ of } 56 = 56 \div 8$$

$$\boxed{\phantom{00}} \text{ of } 56 = 56 \div 4 \times 3$$

(v) Paul has 36 sweets.

On Friday, he eats  $\frac{1}{4}$  of his sweets and gives 2 to his sister.

On Saturday, he eats  $\frac{1}{5}$  of the remaining sweets and gives one to his mum.

How many sweets does Paul have left?

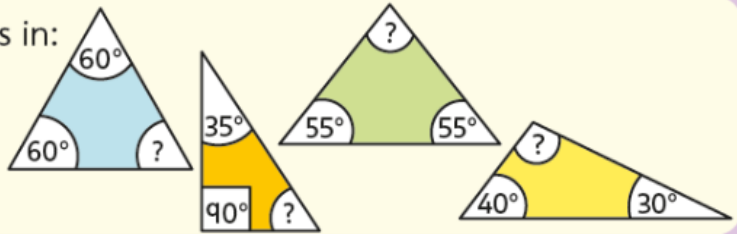
7.

**abacus** Mastery Checkpoint

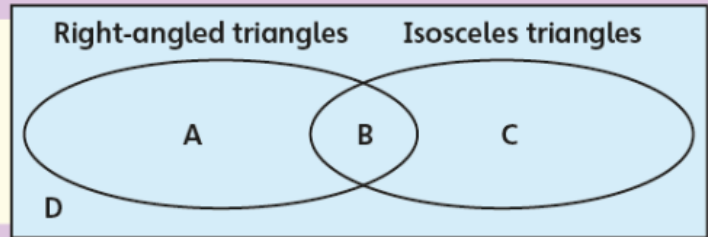
**Have you mastered triangles, including their angles?**

a) Work out the missing angles in:

- the right-angled triangle
- the isosceles triangle
- the equilateral triangle
- the scalene triangle.

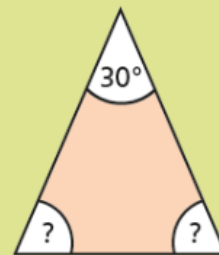


b) Copy this diagram. Draw four triangles, one by each letter.



**Champions' Challenge**

1. This is an isosceles triangle. Work out the missing angles.
2. An equilateral triangle always has angles of 60°. Explain why.



**Have you mastered short division?**

a) Work out these divisions, but look out for one which doesn't need short division!

$$3 \overline{)654}$$

$$5 \overline{)527}$$

$$4 \overline{)648}$$

$$8 \overline{)849}$$

$$4 \overline{)440}$$

$$5 \overline{)786}$$

$$5 \overline{)163}$$

$$3 \overline{)281}$$

A toy manufacturer is making toy cars. It has 458 wheels.

- b) If each car has 4 wheels, how many wheels will be left over?
- c) How many wheels would be left over if the manufacturer made trikes needing 3 wheels each?



**Champions' Challenge**

1. Use the digits 3, 4, 5 and 6 to make two divisions like this:

$$\square \square \square \div \square \text{ r } 1.$$

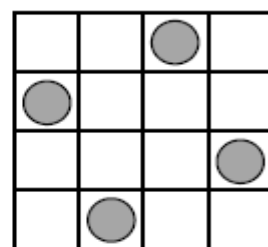
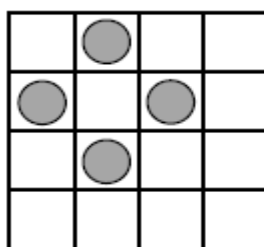
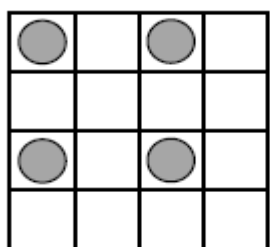
Both divisions must have a remainder of 1.



8.

## All square

On each of these grids, the counters lie at the four corners of a square.



What is the greatest number of counters you can place on this grid without four of them lying at the corners of a square?

