



Year 4 Maths Home Learning | Summer Term



W.C. 6th July 2020

Please use this link first : <https://whiterosemaths.com/homelearning/year-4/>

<https://www.bbc.co.uk/bitesize/tags/z63tt39/year-4-and-p5-lessons/1>

Maths

Use these worksheets to work from **and not on**. All you need is a piece of paper, pencil and a ruler.

After watching the videos and having a go at the practise activities, have a go at these activities. Depending on your confidence choose Mild, Medium or Spicy (you may wish to have a go at more



Extensions – You may wish to deepen your learning by looking at the Collins Worksheets provided by the BBC too.

Over the course of this week, please complete the following arithmetic quiz. Please choose between the two challenge levels, dependent on your level of confidence.

Medium and Spicy:

1 $3 \times 3 =$ 	2 $\frac{\quad}{1} = 12 \times$ 		
3 $45 - \frac{\quad}{25} =$ 	4 $3 \times 0 = \frac{\quad}{\quad}$ 		
5 $\begin{array}{r} 75 \\ +85 \\ \hline \end{array}$ 	6 $\frac{\quad}{11} = 9 \times$ 		
7 $\frac{5}{8} + \frac{2}{8} =$ 	8 $42 = \frac{\quad}{6} \times$ 	15 $\begin{array}{r} 6396 \\ +2547 \\ \hline \end{array}$ 	16 $360 \div 6 =$
9 $456 \div 1 =$ 	10 $\begin{array}{r} 356 \\ -178 \\ \hline \end{array}$ 	17 $\begin{array}{r} 45 \\ \times 3 \\ \hline \end{array}$ 	18 $\frac{1}{6} + \frac{5}{6} =$
11 $\frac{\quad}{84} \times 6 =$ 	12 $\frac{\quad}{32} = \frac{3}{4}$ of 	19 $\begin{array}{r} 5830 \\ +3851 \\ \hline \end{array}$ 	20 $\frac{\quad}{5421} - 1843 =$
13 $\begin{array}{r} 405 \\ -237 \\ \hline \end{array}$ 	14 $2 \overline{)76}$ 	21 $\begin{array}{r} 400 \\ -235 \\ \hline \end{array}$ 	22 $\frac{5}{8} + \frac{6}{8} =$

Mild:

1	$4 + 11 =$ 	☐	2	$21 + 16 =$ 	☐					
3	$\frac{\quad}{8} - 5 =$ ☐	☐	4	$24 \div 3 =$ 	☐	11	$120 \div \frac{\quad}{4} = 40$ ☐	12	$\begin{array}{r} 63 \\ -25 \\ \hline \end{array}$ ☐	
5	$\frac{\quad}{15} = \frac{1}{3} \text{ of}$ ☐	☐	6	$\begin{array}{r} 45 \\ +39 \\ \hline \end{array}$ ☐	☐	13	$\frac{3}{4} \text{ of } 8 =$ 	☐	14	$\frac{\quad}{80} = 4 \times$ ☐
7	$375 + 4 =$ 	☐	8	$27 + \frac{\quad}{68} =$ ☐	☐	15	$\begin{array}{r} 91 \\ -63 \\ \hline \end{array}$ ☐	16	$\begin{array}{r} 27 \\ \times 3 \\ \hline \end{array}$ ☐	
9	$\frac{\quad}{24} \times 4 =$ ☐	☐	10	$\frac{\quad}{300} = 641 -$ ☐	☐	17	$36 + \frac{\quad}{82} =$ ☐	18	$\begin{array}{r} 16 \\ \times 5 \\ \hline \end{array}$ ☐	

Monday

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<https://www.bbc.co.uk/bitesize/tags/z63tt39/year-4-and-p5-lessons/1>

Monday - Identify Angles

Starter 'Fluent in 5'

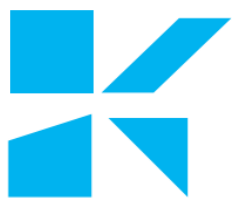
 A. $5 \times 7 =$	 B. $9 \times 12 =$
 C. $9 \div 3 =$	 D. $9132 + 1584 =$
 E. $56 \div 3 =$	

Mild

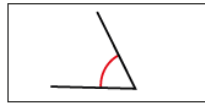
1) Circle the obtuse angles:



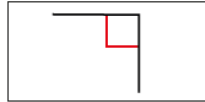
2) Look at these shapes. Label each of the interior angles as obtuse, acute or a right angle.



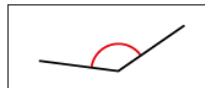
2 Match the angles to the labels.



right angle



acute angle



obtuse angle

1) Which angle is the odd one out? Explain your answer in your book.



2) Romesh says, "A triangle can have two obtuse angles."

Is he correct? _____

Prove it in your book.

1) In your book, write a statement about the angles in a trapezium that is

- never true:
- always true:

Explain your answer.

2) Zafi adds three acute angles together to make an obtuse angle.

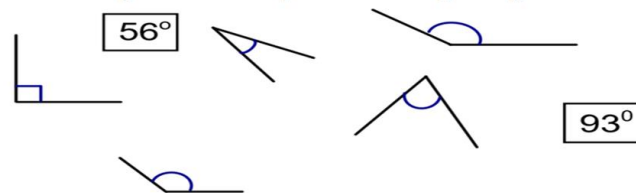
- What is the smallest size her angles can be?
- What is the largest?
- Prove it!

Right angles are _____ degrees.

Acute angles are _____ than right angles and are _____ than 90 degrees.

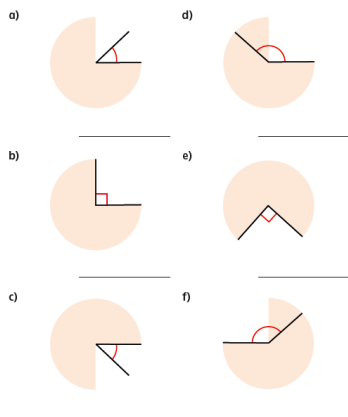
Obtuse angles are _____ than right angles and are _____ than 90 degrees.

Sort these angles into acute, obtuse and right angles.

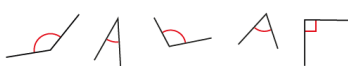


Medium

3 Label the angles: acute, obtuse or right angle.



4 Tick all the acute angles.



1) Which angle is the odd one out?
Explain your answer in your book.



2) Romesh says, "A triangle can have two obtuse angles."
Is he correct? _____

Prove it in your book.



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I know the angle is
not obtuse.



Max

I know the angle is
acute.



Tina

I think the angle is
roughly 45°.



Jess

Who do you agree with? Explain why.

5 Tick all the obtuse angles.



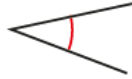
Spicy

6 Label the angles: acute, obtuse or right angle.

a)



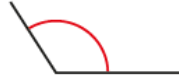
c)



b)



d)



8



Angle B is obtuse because it's bigger than the right angle.

A



B



Do you agree with Teddy? _____

Explain your answer.

9

Are the statements always true, sometimes true or never true?

Explain your answer.

a) An obtuse angle is a greater turn than an acute angle.

b) An acute angle is a greater turn than a right angle turn.

c) If you turn through two acute angles you will have turned through an obtuse angle.

7 Is the angle acute, obtuse or a right angle?

a) 35° _____

d) 89° _____

b) 99° _____

e) 121° _____

c) 90° _____

f) 179° _____

How do you know?

1) In your book, write a statement about the angles in a trapezium that is

a) never true:

b) always true:

Explain your answer.

2) Zafi adds three acute angles together to make an obtuse angle.

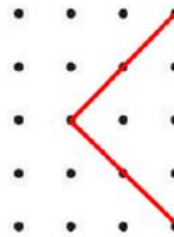
a) What is the smallest size her angles can be?

b) What is the largest?

c) Prove it!



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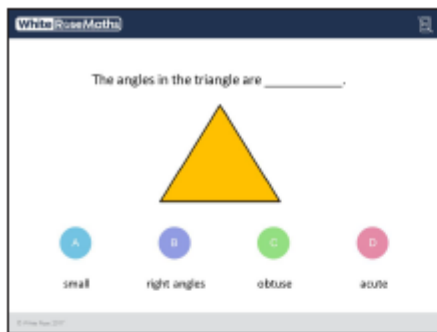
Is the angle acute, obtuse or a right angle?

Can you prove it?

Find the total number of degrees of the largest acute angle and the smallest obtuse angle:

12° 98° 87° 179° 90° 5°

Want to sharpen your skills further? Have a go at the following diagnostic questions:



Correct Answer: A B C D

Explanation:

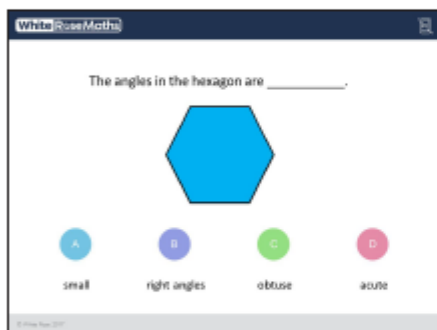
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Correct Answer: A B C D

Explanation:

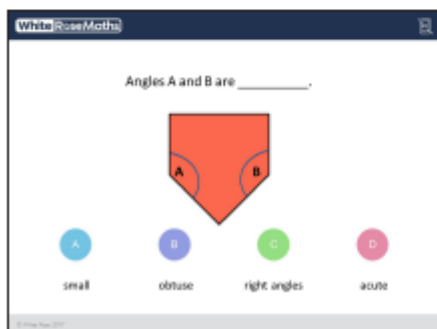
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Correct Answer: A B C D

Explanation:

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Tuesday - Angles Comparing and Ordering

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<https://www.bbc.co.uk/bitesize/tags/z63tt39/year-4-and-p5-lessons/1>

Starter:

 A. $3 \times 2 \times 2 =$

 B. $85 \div 4 =$

 C. $\frac{1}{5} + \frac{1}{10} =$

 D. $7493 + 2428 =$

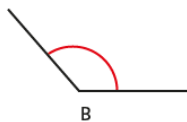
 E. $144 \div ? = 12$

Mild:

1 Here are two angles.



A



B

a) Which angle is obtuse? _____

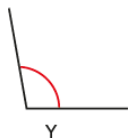
b) Which angle is acute? _____

How do you know? _____

2 Here are two angles.



X



Y

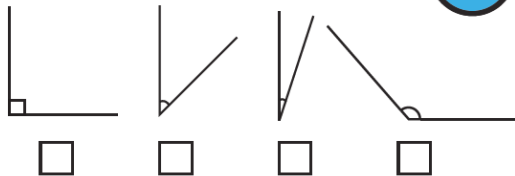
a) What type of angle is angle X? _____

b) What type of angle is angle Y? _____

c) Which angle is smaller? _____

How do you know? _____

1) Order these angles from smallest to largest by labelling them from 1-4.



2) Look at this shape and use $<$ and $>$ symbols to complete the statements below.

angle a ☐ angle c

angle b ☐ angle a

angle d ☐ angle a



3) Label two of the angles in the shape above as either acute or obtuse.

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Put these angle sizes in descending order.

57°

13°

107°

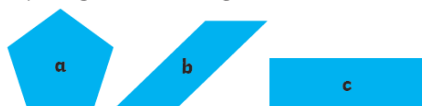
4°

90°

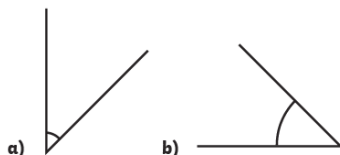
45°

Medium:

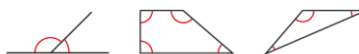
- 1) Which of these shapes is the odd one out based on its angles? _____
Explain your answer in your book.



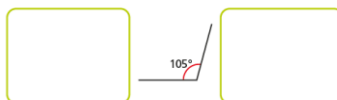
- 2) Tilly says, "Angle b is the largest."
Jaz says, "The angles are the same size."
Whom do you agree with? Explain why in your book.



- 3) Circle the greatest angle in each diagram.



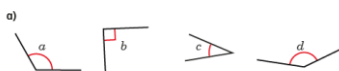
- 4) Here is an angle.



- a) Draw a smaller angle than 105° in the box on the left.
b) Draw a greater angle than 105° in the box on the right.
c) Is this statement true or false?
The angles are in ascending order of size.

Explain your answer.

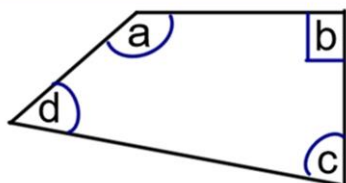
- 5) Order the angles from greatest to smallest.



Circle the largest angle in each shape or diagram.



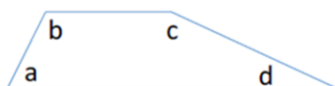
Can you label each angle as acute, obtuse or right angle?



Order the angles in the shape from smallest to largest.
Write two facts about the angles in the shape.

Spicy

Order the angles in the shape from smallest to largest.
Complete the sentences.



Angle _____ is smaller than angle _____.

Angle _____ is larger than angle _____.

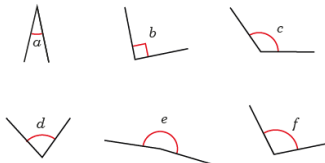
b)



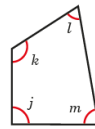
c)



6 Compare and order the angles from smallest to greatest.

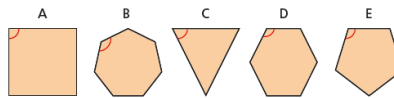


7 Four angles are labelled in the quadrilateral.



- Which of the angles are acute angles? _____
- Which of the angles are obtuse angles? _____
- Write the angles in order of size, starting with the smallest.

8 An interior angle is marked in each polygon.



Order the interior angles of the polygons from smallest to greatest.

What do you notice about the number of sides a polygon has and the size of its interior angle?

Jannat looks at the analogue clock four times during the morning.

The times she sees are:

Eight o'clock

Five past 11

Twenty to eleven

08:15

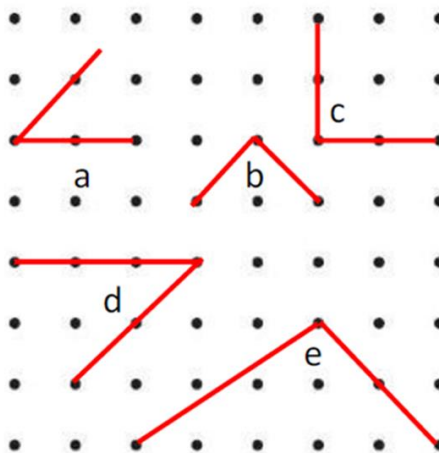
Draw the times on the clock faces and find the angles less than 180 degrees.



Order the angles from greatest to smallest.

Here are five angles.

There are two sets of identical sized angles and one odd one out. Which angle is the odd one out? Prove it.

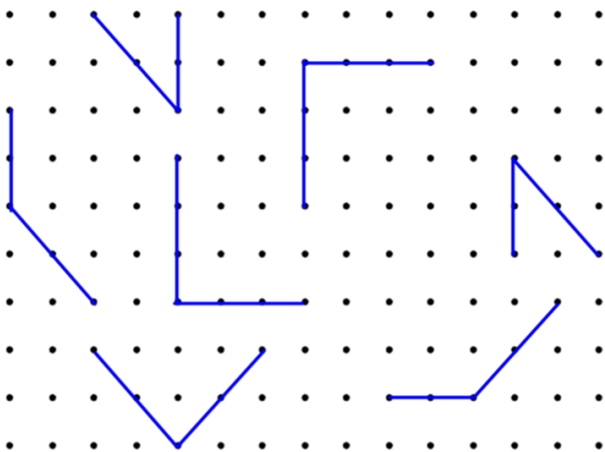


Evaluation Question:

EVALUATION:

Which one doesn't belong?

Here is a set of angles. Which angle is the odd one out? Prove it.



Wednesday

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Wednesday: Triangles

Starter:

▲ A. $\frac{1}{6} + \frac{1}{3} =$

▲ B. $60 \div 3 =$

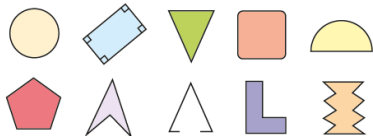
■ C. $56 \times 9 =$

■ D. $5321 + ? = 84\,324$

▲ E. $45 \div ? = 9$

Mild:

1 Here are some shapes.



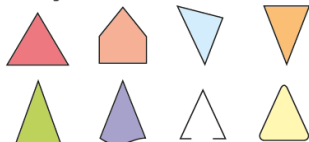
a) Tick the polygons.

b) Talk to a partner about the shapes you have not ticked.
Why are they not polygons?

c) Write a definition of a polygon.

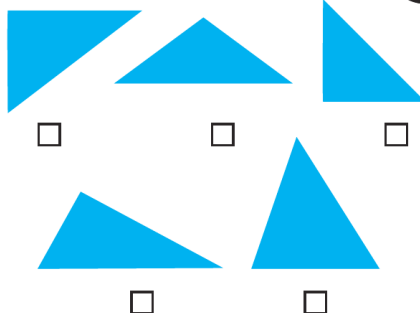
Compare your definition with a partner's.

2 Tick the triangles.



For any shapes you have not ticked, talk to a partner about why somebody might think they are triangles.

1) Circle any scalene triangles.
Tick any right-angled triangles.



2) Name the type of triangle you have not circled or ticked.

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Place the shapes in the correct place in the Carroll Diagram.

	3 sides or less	more than 3 sides
has right angles		
has no right angles		



Look at these Triangles.
What is the same and what is different?
Can you explain why?



Medium:

- 3 Ron is classifying triangles.



This is an upside down triangle.



- a) Ron is incorrect.

Explain why.

- b) What type of triangle is it? _____

- 4 Annie is identifying shapes.



This shape has 3 sides, so it is a triangle.



Do you agree with Annie? _____

Explain your answer.

- 1) What are the differences between these two triangles?

What is similar about them?



- 2) Tick the statements that are true:

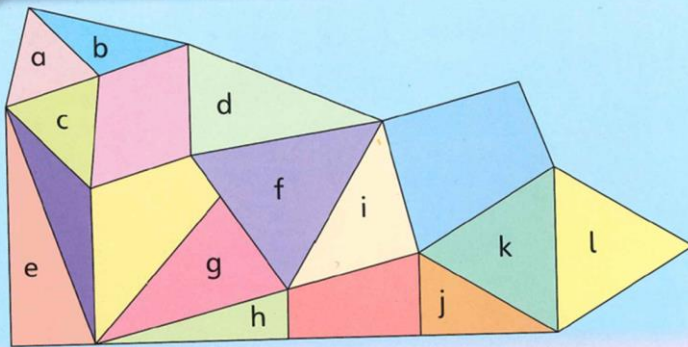
- ☐ A scalene triangle never has equal length sides.
☐ An isosceles triangle can never have a right angle.
☐ An isosceles triangle has three equal angles.
☐ An equilateral triangle has three equal length sides.

Choose one of your true statements and prove it!

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For each triangle, say whether it is equilateral, isosceles or scalene.

1. (a) equilateral



Spicy:

- 5 Match the type of triangle to the definition.

scalene

2 sides and 2 angles equal

equilateral

no sides or angles equal

isosceles

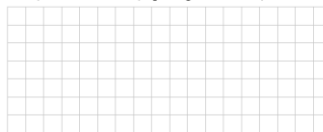
all sides and all angles equal

- 6 Label each triangle as either equilateral, isosceles or scalene. You will need to measure the side lengths.



- 7 Draw each triangle in the grid.

a) isosceles b) right-angled c) scalene

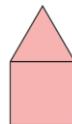


Which triangle was hardest to draw?

- 8 The diagram shows an equilateral triangle and a square.

The perimeter of the square is 100 cm.

Work out the perimeter of the compound shape.



perimeter = cm

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- 1) Here is a 4cm line:



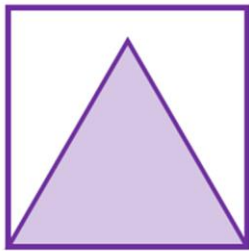
Copy it into your book using a pencil and ruler. Add two more sides to create an isosceles triangle. What are the lengths of the two new sides?

Without drawing the two new sides, write the lengths of the two new sides needed to make an equilateral triangle.

- 2) Investigate:
How many different isosceles triangles can you make where the lengths of the sides are whole numbers (not decimals) that total 12cm? Draw or make your triangles to prove it.
- 3) The longest side of a triangle must be less than the other two sides added together. Investigate if this is always true.

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Here is a square.
 Inside the square is an equilateral triangle.
 The perimeter of the square is 60 cm.
 Find the perimeter of the triangle.



Maisy

If I use a piece of string to make a triangle, all of the sides have to be the same length.

Investigate whether Maisy is correct.

Thursday Four Operations

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<https://whiterosemaths.com/homelearning/year-4/>

Starter:

A. $780 \div 100 =$

B. $43 \times 3 =$

C. $28 \times 1 =$

D. $? + 8432 = 9321$

E. $\frac{3}{5} + \frac{4}{15} =$

Mild

- 1) For each of these quadrilaterals, write the name, number of equal sides, right angles and pairs of parallel sides.



- 2) Draw a quadrilateral with these properties:

- two pairs of equal length sides
- no right angles
- not a parallelogram

What could your quadrilateral be?

What quadrilaterals could you definitely not draw from this description?

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1a. Draw lines to match the true statements to the shape.

It has 4 right angles

It has 5 sides

It is a rectangle



VF

2a. Fill in the blanks to describe the shape.

This shape has ____ sides. It has ____ right angles.



VF

3a. Draw the shape using the description below.

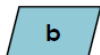
- The shape has:
- 4 equal sides
 - 4 right angles



What shape have you drawn?

VF

4a. Circle the quadrilaterals.



VF

1 Use the word bank to label each quadrilateral.

rhombus

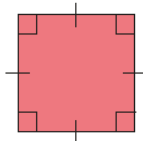
parallelogram

trapezium

rectangle

square

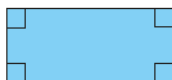
a)



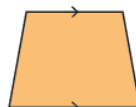
d)



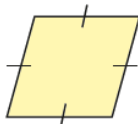
b)



e)



c)



2 Here are some quadrilaterals.



a) Mark any right angles on the shapes.
One shape has been done for you.

b) Mark any pairs of parallel lines.
One shape has been done for you.

c) Which shapes do not have any right angles?

d) Which shapes have two pairs of parallel lines?

e) Which shapes have four equal sides?

How did you know which shape was which?



Medium

- 1) What do any of these shapes have in common?

What is different about them?



- 2) Use isometric (dotty) paper to investigate how many quadrilaterals you can draw which have:

- a) only one set of parallel lines;
- b) no right angles;
- c) all sides of equal length.

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- 3 Complete the table.

Shape	Polygon?	Number of sides	Number of right angles	Number of pairs of parallel sides	Number of equal sides
	Yes	4	4	2	2 pairs
					2

What is the same about all of the shapes?

What is different?

5a. Draw lines to match the true statements to the shape.

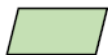
It is a parallelogram

It has parallel lines

It has right angles

It has 4 sides

It is a rectangle



VF

6a. Fill in the blanks to describe the shape.

This shape has ___ sides. It has ___ right angles. It has ___ sets of parallel sides.



VF

7a. Draw the shape using the description below.

The shape has:

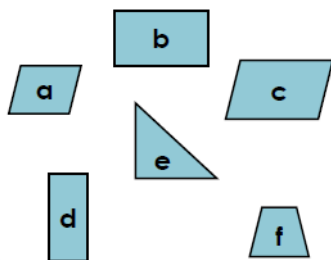
- No right angles
- 2 pairs of parallel lines



What shape have you drawn?

VF

8a. Circle the quadrilaterals.



VF

Spicy

1) Bridie says:

I can draw a quadrilateral with only two right angles and three sides of equal length.



Find out if she is correct by drawing or making quadrilaterals to see if any fit her description.

Is she correct?

Can you explain why?

twinkl.com

9a. Draw lines to match the true statements to the shape.

It has no right angles

It has no parallel sides

It is a square

It has 5 sides

It is a rhombus



VF

10a. Fill in the blanks to describe the shape.

This shape has ___ pairs of equal length sides. It has ___ right angles. It has ___ pairs of parallel sides.



VF

11a. Draw the shape using the description below.

The shape has:

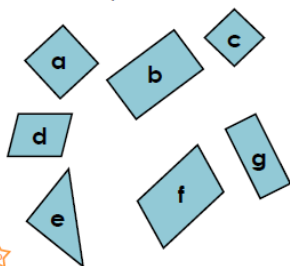
- 2 pairs of equal sides
- No right angles
- Not a parallelogram



What shape have you drawn?

VF

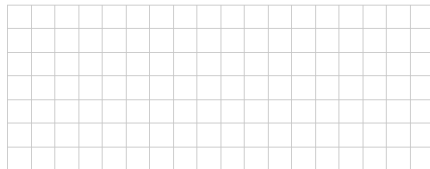
12a. Circle the quadrilaterals.



VF

4 Draw the shapes on the grid.

a) square b) trapezium c) parallelogram



5



This is a square because it has got 4 equal sides.



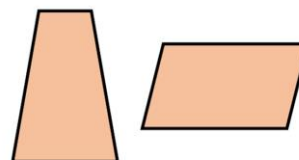
Do you agree with Rosie? _____

Explain your answer.

6 Complete this Frayer Model to describe a quadrilateral.

My definition	Key characteristics
Example	Non-example
Quadrilateral	

7a. What is the same about these two shapes? What is different?

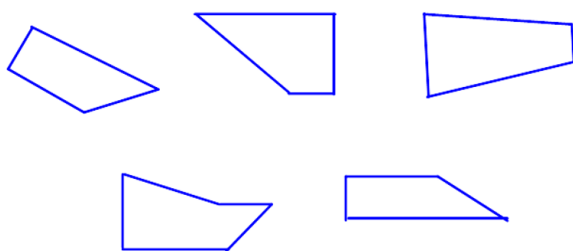


VF

Evaluation 'Odd One Out':

Odd one out

Here is a group of quadrilaterals. Which one is the odd one out?



Friday

Today you can challenge yourself with the key skills test, along with the challenge activities posted on the **BBC website and White Rose**

<https://www.bbc.co.uk/bitesize/tags/z63tt39/year-4-and-p5-lessons/1>

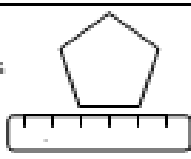
<https://whiterosemaths.com/homelearning/year-4/>



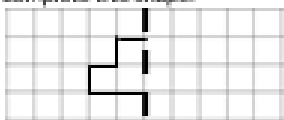
Times Table Rock Star Battle- Mrs Shaughnessy has organised a "battle" between each class in our year group. The start date is today and the finishing date is next Sunday 28th June so the results will be published that week on twitter. Get battling and let's see who wins!!!

Remember the Key Skills sheets are only to work from **not on** so do not worry if you cannot complete a couple of the questions.

Mild

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions		C: Measure and Geometry	
1. What is 100 more than this number? 247	E1	11. $16 \div 8 =$	E12	23. A cake weighs 2 kilograms. It is cut into 4 equal pieces. How many grams does each piece weigh?	E18
2. What is the 8 worth in this number? 384	E2	12. $3 \times 4 =$	E13		
3. Write < or > to make this correct: 694 294	E3	13. $45 \times 4 =$	E17	22. What is the perimeter of this regular pentagon?	E18
4. Show 12°C on the thermometer.	E4	14. There are 3 girls for every 2 boys. If there are 15 girls, how many boys?	E17		
5. Make the smallest number possible using the digits 4 1 and 3.	E5	15. What is one tenth of 5?	E13	23. Ian turns through a full turn. How many degrees has he turned through?	E18
6. $310 - 1 =$	E6	16. Circle $\frac{1}{2}$ of the marbles.	E14		
7. $792 - 538 =$	E7	17. What is $\frac{4}{5}$ of 32?	E18	24. Draw an angle that is bigger than a right angle.	E17
8. Circle the best estimate to $452 \div 89$: 330 340 350 360	E8	18. $\frac{1}{2} \quad \frac{2}{3}$	E14		
9. A school has 650 tickets to sell for a play. They sell 478. How many left?	E9	19. Add the fractions.	E17	25. Draw a pair of parallel lines.	E18
10. What is the missing number? $57 + \square - 23 = 95$	E9	20. Write the largest fraction.	E18		
Total (A)		Total (B)		Total (C)	

Medium and Spicy

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions		C: Measure, Geometry and Statistics	
1. What is the missing number? 1,000 2,000 4,000 5,000	1	11. $9 \times 9 =$	8	21. How many millilitres are there in 2.15 litres?	
2. What is the missing number? 200 225 250 275	1	12. Complete the sum that is equal to $4 \times 5 \times 18$: $20 \times$	8		
3. Round this number to the nearest 1,000: 3,192	2	13. $932 \times 4 =$	8	22. Tick (✓) the shape that has exactly 2 lines of symmetry.	
4. What is 1,000 more than 6,394?	4	14. To work out 4×55 you could do: $50 \times$ + $\times 5$	8	☐  ☐	
5. If the temperature starts at 5°C, then drops by 9°C, what is it now?	2	15. $\begin{array}{r} 3 \\ - \end{array}$ $\begin{array}{r} 7 \\ - \end{array}$	2	23. Complete this shape:	
6. What is the value of the 8 in this number? 6,283	2	16. What is the missing number? 9.96 9.97 9.98 9.99	8		
7. Write the number 74 in Roman numerals.	43	17. $\begin{array}{r} 1 \\ - \end{array}$ $\begin{array}{r} 4 \\ - \end{array}$	18	24. Number of tyres sold by a garage one weekend:	
8. $4,115 - 1,472 =$	8	18. Write 0.8 as a fraction.	18	Key: $\oplus = 4$ tyres	
9. Estimate the answer to: $15,507 + 4,489$	8	19. $293 \div 10 =$	8	Saturday	$\oplus \oplus \oplus \oplus \oplus$
10. From 300 tickets, pupils buy 89 & parents buy 184. How many are left?	8	20. Using £20 Rob buys a DVD for £6 and a CD for £6.95. How much left?	8	Sunday	
Total (A)		Total (B)		13 were sold on Sunday. Show this.	
Test Total (A + B + C)		B (in A)		A (in A)	
				C (in A)	
				25. How many tyres were sold in total over the weekend?	
				Total (C)	