

Westbourne House School Revision – Summer Term

Y6 MATHS REVISION CHECKLIST

The Exam(s) will consist of:

One Non-calculator Paper – duration 60 minutes

One calculator paper – duration 60 minutes

One short Maths Aural – duration 20 minutes (paper is done during a maths lesson)

Equipment you will need for the exam:

- Ruler (15cm and 30cm)
- Pencil
- Eraser and pencil sharpener
- Compass
- Protractor
- Calculator (for the calculator paper)

TOPIC / PAPER	WHAT TO REVISE	DONE?
Non-Calculator Paper	<p>Language of maths - factors and multiples, square numbers, odd, even, prime numbers.</p> <p>Addition and subtraction - with decimals</p> <p>Multiplication and division - with decimals</p> <p>Multiplying and dividing by 10, 100 and 1000</p> <p>Ordering decimals</p> <p>BIDMAS</p> <p>Worded questions with multiplication and division</p> <p>Fractions to decimals to percentages</p> <p>Fractions – shading fractions, fractions of a number, adding and subtracting fractions.</p> <p>Percentages of a number</p> <p>Algebra – substitution</p>	

Calculator paper	<p>Algebra – solving equations Measuring and drawing angles</p> <p>Calculating angles using angle rules in parallel lines, on a straight line, round a point and in a triangle.</p> <p>Area of squares and rectangles and compound shapes Perimeter of squares and rectangles and compound shapes</p> <p>Series and sequences of numbers</p> <p>Converting between different metric units (ie. km – m etc)</p> <p>Negative numbers</p> <p>Problem solving wordy questions involving multiplication, division, percentages and fractions</p> <p>Filling in missing numbers from number sentences.</p> <p>Ratio</p> <p>Algebra – simplification</p> <p>Time, distance and speed. Including converting from km/hour to m/s</p> <p>Area of a triangle</p> <p>Drawing and interpreting simple pie charts</p>	
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Maths Aural	<ul style="list-style-type: none"> • Exam taken in classroom under exam conditions. • Questions are read out by the teacher and pupils are allowed to show their workings. • No calculators to be used. 	
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NOTES/TIPS:

- Revise by practising the questions below, using your note books and appropriate websites like www.mathletics.co.uk or www.mymaths.co.uk
- In all maths exams workings are essential. It must be assumed that any question worth more than 1 mark requires at least one line of working. Workings should not be “doodle” like but be clearly set out in a logical manor preferably starting at the top of the space provided and working in a downwards direction.
- For any further information or guidance about revision or the actual exam, please contact the Head of Maths – Mrs Barbara Langford (blangford@westbournehouse.org)

Number work

1. Calculations (non-calc!!)

a. $354 + 45 =$

b. $35 \times 9 =$

c. $23 \times 6 =$

d. double 72 =

e. half 94 =

f. $7.34 + 8.89 =$

g. $9.21 - 5.32 =$

h. $528 \div 3 =$

2. BIDMAS

a. $3 - 5 + 8 =$

b. $3 + 4 \times 5$

c. $(2 + 3)^2 =$

3. Series and sequences

Fill in the missing spaces on the following number sequences

a. 3, 8, 13, 18,,

b. 3.5, 5.5, 7.5, 9.5,,

c. 6,, 26,,, 56, 66

A different sequence is formed following the rule “double and then add 5”

- a. If the first number is 4, find the next two numbers.
- b. If the second number is 25, what is the first number?

4. Fractions, decimals and %

a. Write 0.6 as a fraction in its lowest terms

b. Write $\frac{38}{100}$ as a decimal

c. Write $\frac{38}{100}$ as a fraction in its lowest terms

d. Write 38% as a decimal

e. Write 0.74 as a percentage

f. Find 10% , 25% and 50% of £7.00

g. Find 10%, 25% and 50% of £30

h. Find $\frac{2}{5}$ of 35

i. Find $\frac{5}{6}$ of 72

j. Calculate $\frac{1}{13} + \frac{2}{13}$

k. Calculate $\frac{2}{5} + \frac{3}{4}$

l. Mrs Jones has a pizza. Jack Jones eats $\frac{7}{12}$ and Mrs Jones keeps $\frac{1}{4}$ for herself. Her lucky dog gets the rest. What fraction of the pizza does her dog get?

5. Multiplying and dividing by 10, 100, 1000 (powers of 100)

a. $6.23 \times 10 =$

b. $6.23 \times 100 =$

c. $65.74 \div 10 =$

d. $45.3 \times 100 =$

e. $3.45 \div 1000 =$

6. Negative numbers - directed numbers

a. $-12 - 8 =$

b. $-12 + 8 =$

c. $12 - -8 =$

d. $12 \times -8 =$

e. $-16 \div 4 =$

f. The temperature is a 4°C one winter afternoon and falls by a further 5°C by midnight. What is the temperature at midnight?

g. The temperature Moscow at night is -20°C . During the day the temperature rises by 6°C . What is the new temperature?

7. Reverse calculations - fill in the missing number (you can use a calculator for b. and c.)

a. $3.4 \times \dots\dots\dots = 34$

b. $252 \div \dots\dots\dots = 84$

c. $\dots\dots\dots - 2.4 = 10.6$

8. Distance / time

a. If a car travels at 40 km per hour how far will it travel in 2 hours?

b. If a car travels at 30km per hour. How long will it take to travel 210 km?

c. Write 72 km / hour as metres per second (m/s)

Ratio

9. If the ratio of girls to boys in a class is 3:4 and there are 12 boys. How many girls are there?

10. If the ratio of cats to dogs on a street is 5:6 and their are a total of 44 animals on the street. How many dogs are there?

11. In a recipe for 3 people you need 1 egg, 120 g flour and 60 g butter. How much of each of the

ingredients would you need for

- a. 12 people
- b. 10 people

Algebra

12. Substitution

Given that $a = 3$, $b = 4$, $c = -5$ find

$$3a$$

$$4c$$

$$a + b + c$$

$$abc$$

$$a + b$$

$$a - c$$

13. Simplification

Simplify the following

$$a + a + a + a$$

$$3a + 4a - 2a + 3b$$

$$3a - 4b + 2a + 5b$$

$$a \times a \times a \times a$$

$$3a \times 4b$$

14. Equations

$$4a = 20$$

$$a + 5 = 7$$

$$2a + 7 = 17$$

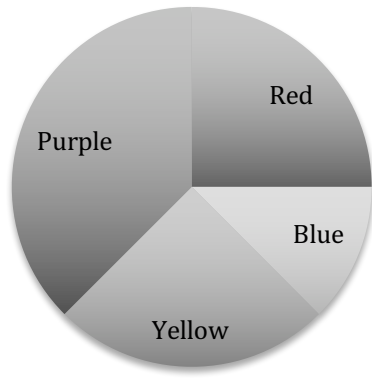
$$3a + 16 = 5a + 4$$

$$3a - 5 = a + 7$$

Averages and displaying data

15. Pie charts – The following Pie chart shows the favourite colours of **120** girls.

Favourite colours



a. What percentage of the girls preferred red?

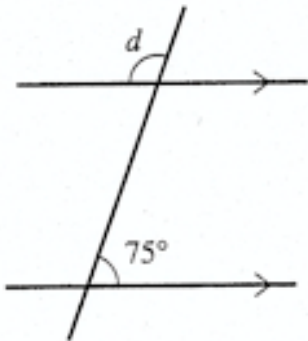
b. What fraction of the girls preferred blue?

c. If 30 girls thought that **Yellow** was their favourite colour then how many girls chose **Purple** as their favourite colour?

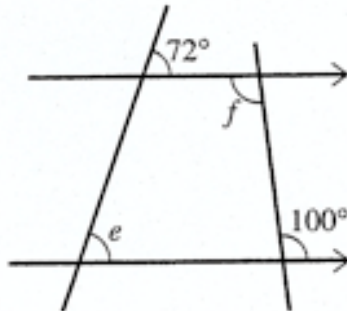
Angles

16. Find the missing angles

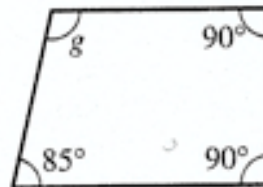
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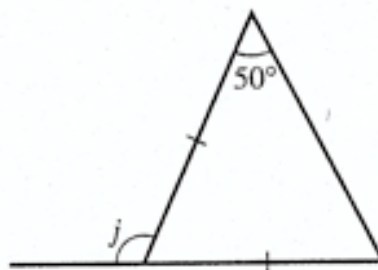
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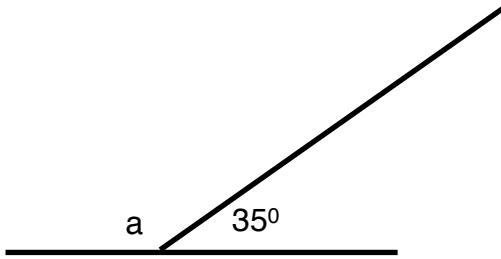
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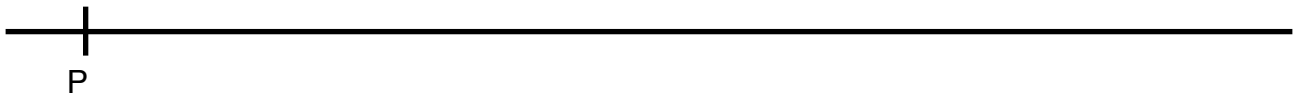
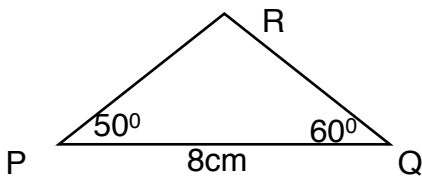
10.



17. Draw accurately and then measure the missing angle



18. Draw accurately using a ruler and protractor the following triangle.



Area

19. The area of a square is 100 cm^2 . What is the perimeter?

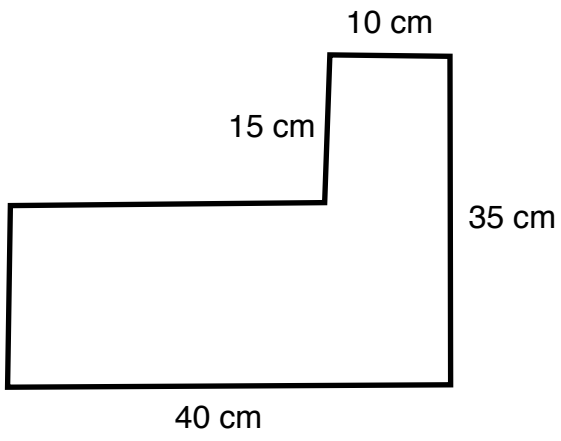
20. A rectangle has an area of 42 cm^2 . One of the sides is 6cm.

- a) How long is the other side?
- b) What is the perimeter of the rectangle?

21. A triangle has a base of 10cm and a height of 8cm. What is the area?

22. A regular octagon has a side length of 5cm. What is the perimeter?

23. Find the perimeter of the following shape that has been made from two rectangles.



24. Find the area of the following triangle.

