KEY STAGE 3 MATHEMATICS YEAR 7
Revision Topic List – June 2025

FAIRFAX
SINCERITAS LABORIS

All groups need to know	Had a try	Nearly there	Got it!
Fractions			
Decimals			
Percentages			
Simplifying expressions			
Directed number			
Rounding numbers			
Sequences			
Order of operations			
Areas of polygons			
Bar charts			
Types of triangles			
Solving equations			
Multiplication			
Division			
Angle facts			
Averages			
Frequency Trees			
Substitution			
Square numbers			
Standard form			
Algebraic fractions			

Year 7 - revision questions

1. Round the following to the nearest 100.

   54   538   2745   4615   12 396

2. Find $\frac{2}{3}$ of 48

3. Calculate 35% of 60

4. Calculate 20.3 x 1.5

5. Calculate 16.5 ÷ 0.3

6. Calculate

   a. -21 + 50

   b. -10 – (-20)

   c. -24 + (-6)

   d. -20 ÷ 4

   e. -2 x 5 x -4

7. Draw **one** line to join **two fractions** which have the **same value**.

   $\frac{3}{5}$ $\frac{6}{9}$

   $\frac{1}{8}$ $\frac{7}{10}$

   $\frac{2}{3}$ $\frac{3}{7}$

8. How many fifths are in **1⅕** ?.

$$1⅕ \quad = \quad /_5$$

9. Round the following to the nearest 10.

224	538	745	461	396

10. If a = 7 and b = 2, what are the following?

a) 5a

b) b + 9

c) 2a – 3b

d) a^2 - 8

e) $3b^3$

11. Complete the table to show equivalence:

Fraction	Decimal	Percentage
	0.8	
		75%
$^6/_{10}$		
$^2/_5$		
	0.3	

12. Here is a pattern on a grid.
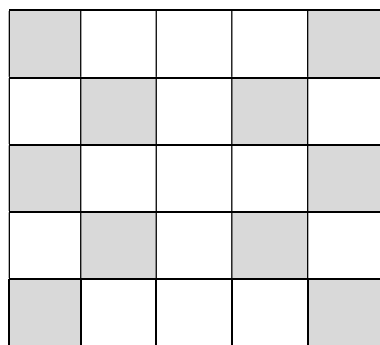
What fraction of the grid is shaded?

13. Change $\dfrac{28}{3}$ to a mixed number.

14. Write $\dfrac{15}{18}$ in its simplest form

15. Complete these fractions to make each equivalent to $\frac{1}{5}$

$$\dfrac{\Box}{10} \qquad \dfrac{\Box}{15}$$

$$\dfrac{12}{\Box}$$

16. Calculate $\dfrac{13}{20} + \dfrac{4}{5}$ giving your answer as a mixed number

17. Simon thinks of a number.

He **multiplies** it by **4** and **adds 9**. His answer is **33**. What is the number Simon thinks of?

18. Complete the calculations.

a. 32 + 6 ÷ 2

b. -5 - 3^2

c. $(-5)^2 - 6$ x 4

d. -9 ÷ -3 + -2 x -2

e. -9 ÷ (-3 + -2 x -2)

19. Find the mean, median, mode and range of 15, 13, 11, 9, 7, 10, 0, 0, 1, 3.

mean =

median =

mode =

range =

20. Simplify

a. $5a - 3a + 6a$

b. $4w + 2v - 4v + 2w$

c. $x \times x \times x \times x$

d. $3x \times y \times y \times x$

21. Solve

    a. $x + 5 = -3$ **b.** $2x + 4 = 5$

22. Here are the first 5 terms of an arithmetic sequence.

$$6, \quad 11, \quad 16, \quad 21, \quad 26$$

    a. Find the next 2 terms of the sequence.

    b. What is the term-to-term rule?

23. (a) Express 0.000043 in standard form

    (b) Express 7×10^4 as an ordinary number

24. In a sale, shirts are on the offer "buy 2, save $\frac{1}{3}$ off the price". Jeans are also currently 30% off.
Shirts normally cost £45, and jeans cost £50.
What is the cost of buying 2 shirts and 2 pairs of jeans?

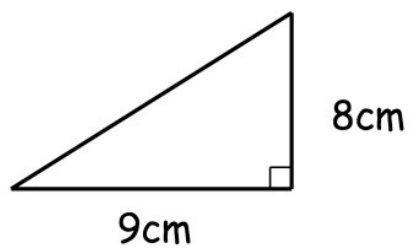**25.** From the diagram. write down the size of angle:

    a) BDA

    b) BAC
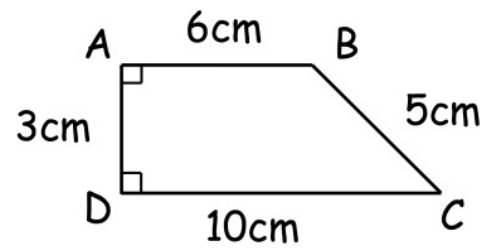
    c) DCA

    d) What type of triangle is ΔABC?
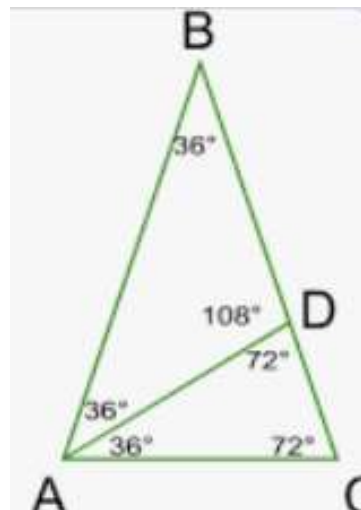
26. Find the area of the shapes below

a.

b.

c.

d.

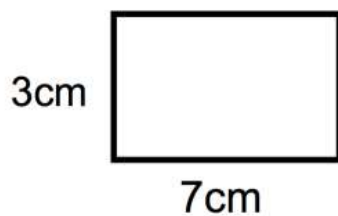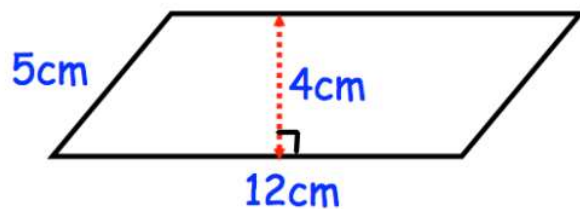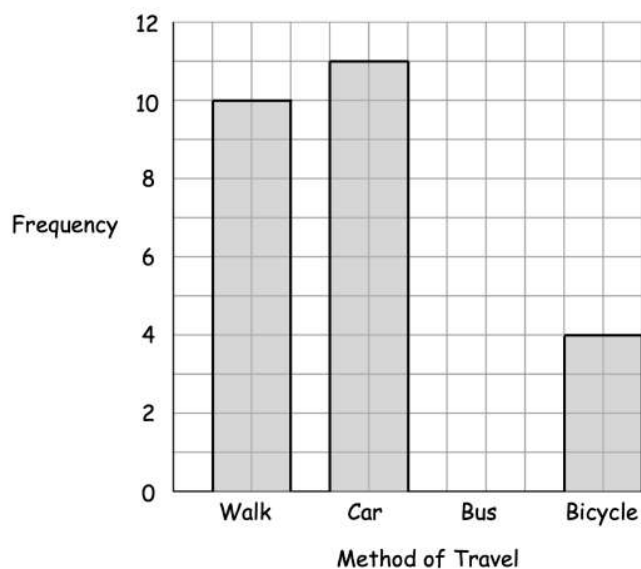**27.** A teacher asked her students how they travel to school.

The bar chart shows some of her results.

a. If 6 pupils travelled by bus, complete the bar chart.

b. How many students walked to school?

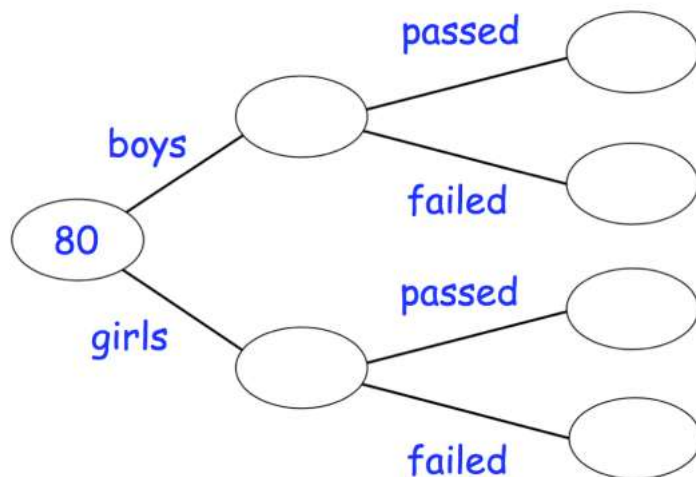**c.** Calculate how many students were asked in total.

28.

A group of 80 boys and girls sat a test.

36 of the children are girls.
9 of the 80 children failed the test.
39 of the boys passed the test.

(a) Use this information to complete the frequency tree.

29. Round each number correct to 1 significant figure

a. 236

b. 74.86

c. 6793

d. 0.0587

e. 1.06

30. Simplify

(a) $\dfrac{x}{3} + \dfrac{x}{5}$

(b) $\dfrac{c}{2} + \dfrac{c}{7}$

(c) $\dfrac{w}{3} + \dfrac{w}{9}$