

Revision Booklet 1

Topics

1. Whole Numbers
2. Decimals
3. Fractions
4. Coordinates
5. Introduction to Algebra
6. Angles
7. Collecting Data
8. Charts & Graphs
9. 2D Shapes
10. Triangles & Quadrilaterals
11. Factors & Multiples
12. Sequences
13. Perimeter & Area

Name _____

1. Write $5^3 \times 5^2 \times 5$ as a single power of 5.

2. Calculate to 2 d.p.

$$\text{a. } \frac{3 - 1.5}{3 + 1.5}$$

$$\text{b. } \frac{3.2^2 - 1.5^3}{2.7^3 + 0.9^2}$$

3. Which two of the following calculations are wrong? Explain how you know the two that are wrong without calculating the answers.

- | | | | |
|----|---------------------------|----|--------------------------|
| a. | $12.5 \div 0.8 = 15.625$ | d. | $16.5 \times 0.2 = 3.3$ |
| b. | $15.4 \times 0.7 = 10.78$ | e. | $18.4 \div 0.4 = 46$ |
| c. | $14.2 \div 0.6 = 2.84$ | f. | $19.4 \times 0.5 = 97.5$ |

4. Find an expression for the n^{th} term for the following sequences:

a) 4, 7, 10, 13, 16...

b) 3, 8, 13, 18, 23...

5. Explain how you know that the answer to the calculation below is obviously wrong. Without using a calculator, work out the correct answer.

$$\frac{25}{0.25 \times 0.2} = 0.5$$

6. Simplify

- a. $2v + 4 + v + 7$
- b. $4k + 5b - 3k - 2b$
- c. $2y - 6h - 7y + 10h$
- d. $7p - 9r - p - r$

7. Multiply out the brackets in the following:

- a. $2(a + 3)$
- b. $4(3h - 5)$
- c. $2(3d + p)$
- d. $4b(3w + 2b)$

8. Factorise the following

- a. $2h + 8$
- b. $15k - 10$
- c. $16m + 4y$
- d. $12nk - 4k^2$

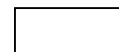
9. The area of a rectangle is length multiplied by height, so the area of the rectangle below must be $5(c + 4d)$ units².



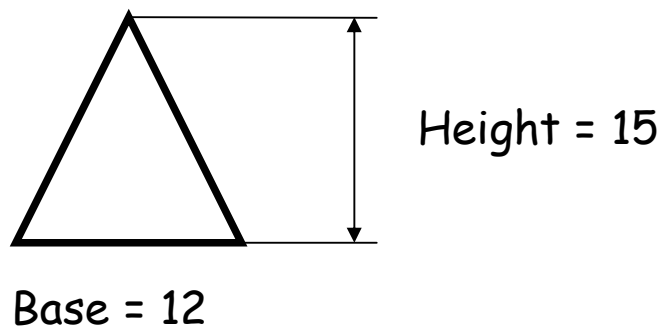
Multiply out $5(c + 4d)$

10. This rectangle has an area of $(8b + 12m)$ cm². If its height is 4 cm, what is its length?

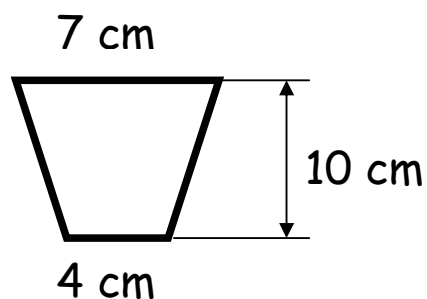




11. Calculate the area of this triangle



12. Calculate the area of this trapezium



13. This parallelogram has a base of 15 cm and a vertical height of 7 cm. Calculate its area.

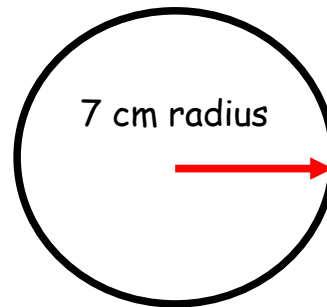
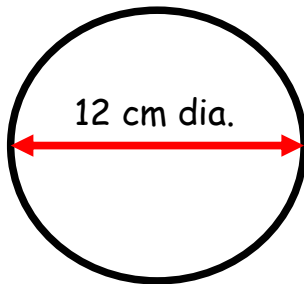


14. What is the sum of a triangle's interior angles?

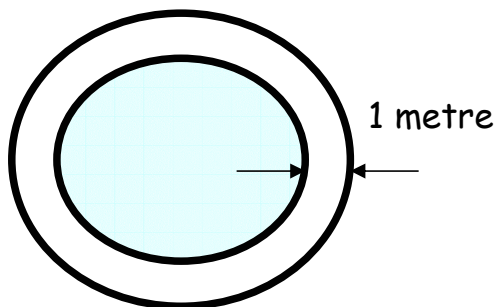
15. Find the highest common factor of 72 and 108.

16. Find the lowest common multiple of 35 and 60.

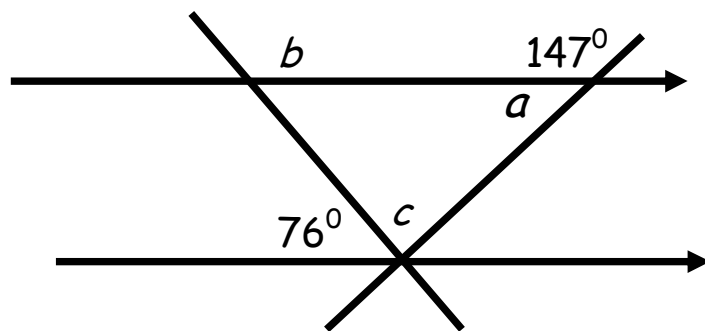
17. Calculate the area and circumference of these circles



18. A circular pond has a 1 metre wide path around its edge as shown. If the diameter of the pond is 8 metres, calculate the area of the path.



19. Calculate the angles a , b and c marked below.



20. Put the information about flavour of crisps sold in a café onto a pie chart showing clearly how the angles are calculated.

Flavour	Freq.	Calculations	Angle
Ch. & Onion	10		
Plain	25		
Prawn	20		
Salt & Vinegar	12		
Smokey Bacon	5		