

Homework 15

Where a question asks you to show working, you will only be awarded the mark for a correct answer if it is supported by an appropriate method

Due in:

<p>1. The diameter of a circle is 120mm. Calculate its area. Give your answer correct to 2dp</p>	<p>3. Using a clear written method:</p> $\frac{8}{9} - \frac{2}{5}$
<p>2. Find the LCM of 9 and 15.</p>	<p>4. Simplify the following expression.</p> $\frac{a^{10} \times a^{-3}}{a^2}$

5. One of the angles in an isosceles triangle is 64° . What could the other two angles of the triangle be?
(Hint: there are two possible solutions!)

8. $\frac{5}{8}$ of an amount is £56. What is $2\frac{1}{2}$ times the amount?
Show your working out.

6. The mean of a set of 6 numbers is 17. Five of the numbers are 5, 5, 9, 13 and 21. What is the fifth number?

9. Share 350 in the ratio 10:6:4

7. A toaster is reduced by 15% in the sales. It originally cost £45. How much is it in the sale?

10. Write down the first 5 terms of the sequence
 $T(n) = 6n + 5$

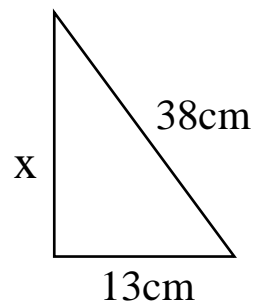
11. Solve the equation:

$$2(3x - 4) = 3x - 10$$

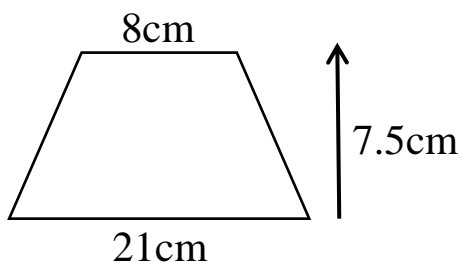
14. Round 562.89 to 1 significant figure.

12. Convert 40 gallons into litres.

15. Calculate the length of the side marked x . Show your working giving your answer to 1 decimal place.



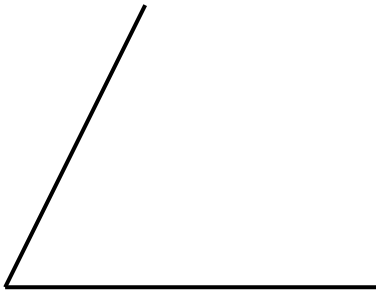
13. Calculate the area of the shape:



16. Expand and simplify:

$$(x + 3)(x - 12)$$

17. Construct the angle bisector using compasses and a straight edge.



19. How many sides does a regular polygon with an exterior angle of 20° have?

18. A rectangle base 7.5cm and height 10.5cm is enlarged by a scale factor of 3. What is the perimeter of the new rectangle?

20. Write the equation of a line which is parallel to:

$$y = 7x + 2$$

Total:

