## Homework 24

Where a question asks you to show your working, you will only be awarded the mark for a correct answer if it is supported by an appropriate method.
Due in:
You MUST show your working

1. . A sector of a circle has an 3. Using a clear written angle of $45^{\circ}$, and a radius of
6 cm . What is the perimeter of the sector? method:

$$
\frac{4}{9} \times \frac{1}{3}
$$

2. Find the midpoint of $(3,5)$ and (7, 9).
3. Factorise fully;
$12 a b+6 a b-9 b c$

| 5. What is the sum of the <br> interior angles of a <br> pentagon? | 8. What decimal multiplier <br> would you use to increase <br> an amount by 12\%? |
| :--- | :--- | :--- |


| 11. Solve the equation remember to give BOTH solutions: $x^{2}=36$ | 14. Estimate by founding to 1sig fig. $6.7 \times 31$ |
| :---: | :---: |
| 12. An object travels 10 km in half an hour. What is its speed in $\mathrm{Km} / \mathrm{h}$ ? | 15. Is the triangle shown a right angled triangle? You must show your working out. |
| 13. A cube has the volume of $8 \mathrm{~cm}^{3}$. What is its surface area? | 16. Expand and simplify: $3 a+2 a(4-3 b)$ |


| 17. The rectangle base 4cm | 19. Showing a complete |
| :--- | :--- |
| and height 5cm is enlarged by |  |
| written method divide 32 by |  |
| a scale factor of 3. What is the | $0.8 ?$ |
| area of the enlarged shape? |  |
|  |  |
| $18 . \quad$ Showing a complete |  |
| written method find the product |  |
| of 3.8 and 7.4. | line segment formed by joining |
|  | the points (3, 5) and (7, 9). |

## Total:

