

October Daily Tasks Days 1 - 7

1. Change the subject of the formula below to  $P$ .

$$Q = \frac{3(2P-R)}{4V^2}$$

2. In a town, the price of fuel per litre is recorded in 6 different garages. The results, in pence, are shown below.

130    139    134    133    136    138

- a. Calculate the mean and standard deviation of the prices.
- b. A city had its prices recorded in 6 garages.  
The mean price was 139 pence and the standard deviation was 2.63.

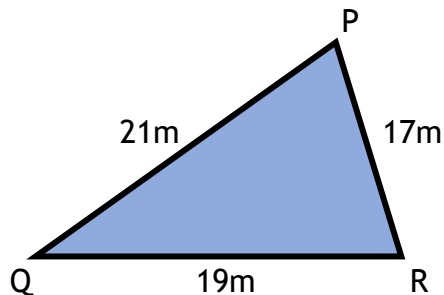
Write two valid comments about the prices of fuel.

3. Expand each set of brackets and simplify.

a)  $(x^2 - 4x + 6)(2x + 3)$

b)  $(x - 4)(x + 5)(x + 2)$

4. A triangular section has been marked off in a pond. Its dimensions are shown below.



- a) Calculate the size of angle PQR.  
b) Calculate the area of the section marked.
5. Express  $x^2 - 8x + 3$  in the form  $(x - a)^2 + b$ .
6. Two points have coordinates  $(1,1)$  and  $(p^2,p)$ .  
Find an expression for the gradient of the line in its simplest form. .
7. Solve the inequality below  
 $4(4 - 3p) < 31 - 7p$