

Target 5 Sheet 04C

Question 1

Solve by factorising:

$$3x^2 - 17x + 24 = 0$$

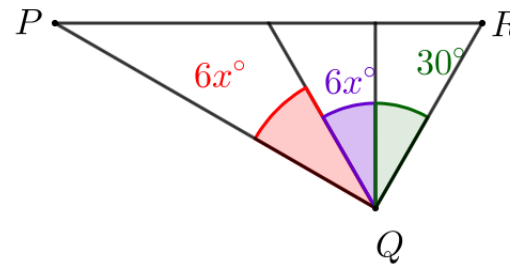
Question 3

Show that the sum of seven consecutive integers is always a multiple of 7.

Question 2

Angle PQR is not obtuse.

Find the greatest value of x .



Question 4

1 red rail has a length of 7 m.

2 yellow rails have a mean length of 4 m.

5 pink rails have a mean length of 9 m.

Find the mean length of the 8 rails.

Target 5 Sheet 04C

Question 1

Solve by factorising:

$$3x^2 - 17x + 24 = 0$$

$$(x - 3)(3x - 8) = 0$$

$$x = 3, x = \frac{8}{3}$$

Question 3

Show that the sum of seven consecutive integers is always a multiple of 7.

Let n be an integer.

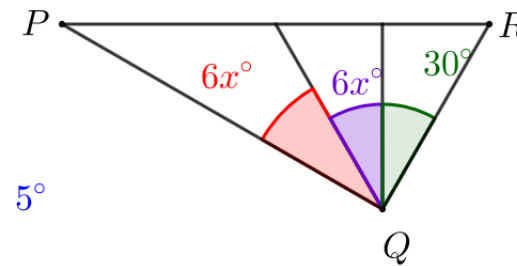
Then $n, n + 1, n + 2, n + 3, n + 4, n + 5, n + 6$ are seven consecutive integers.

These sum to $7n + 21 = 7(n + 3)$, which is always a multiple of 7.

Question 2

Angle PQR is not obtuse.

Find the greatest value of x .



Question 4

1 red rail has a length of 7 m.

2 yellow rails have a mean length of 4 m.

5 pink rails have a mean length of 9 m.

Find the mean length of the 8 rails.

7.5 m