Target 5 Sheet 04A

BossMaths

Question 1

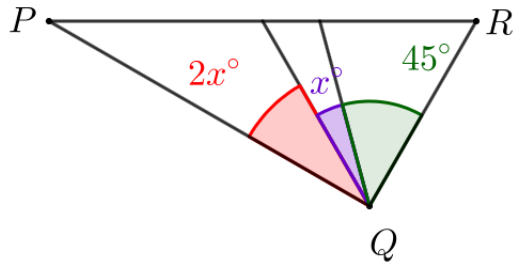
Solve by factorising:

$2\,x^2 + 13\,x + 11 = 0$

Question 2

Angle PQR is not obtuse.

Find the greatest value of x.



Question 3

Show that the sum of six consecutive integers is always a multiple of 3.

Question 4

1 yellow rail has a length of 9 m.

1 pink rail has a length of 2 m.

8 green rails have a mean length of 1 m.

Find the mean length of the 10 rails.

Target 5 Sheet 04A

BossMaths

Question 1

Solve by factorising:

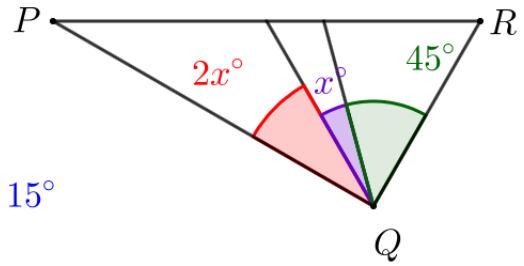
$2\,x^2 + 13\,x + 11 = 0$

$(x + 1)(2\,x + 11) = 0$

$x = -1,\ x = -\dfrac{11}{2}$

Question 2

Angle PQR is not obtuse.
Find the greatest value of x.



Question 3

Show that the sum of six consecutive integers is always a multiple of 3.

Let n be an integer.
Then $n,\ n+1,\ n+2,\ n+3,\ n+4,$
$n+5$ are six consecutive integers.
These sum to $6n + 15 = 3(2n + 5)$,
which is always a multiple of 3.

Question 4

1 yellow rail has a length of 9 m.

1 pink rail has a length of 2 m.

8 green rails have a mean length of 1 m.

Find the mean length of the 10 rails.

1.9 m