### 20th December

#### Find x

![Diagram of a triangle with one interior angle marked as 140° and another angle x.]  

A student in a class complete a puzzle. The longest time taken was 114 seconds. 50% of the students completed the puzzle in under 94 seconds. The range was 52 seconds. The lower quartile was 75 seconds. The interquartile range was 30 seconds.

#### Complete the box plot

![Box plot diagram]

#### Calculate the perimeter of this sector.

![Sector with radius 10 cm and central angle 100°]

#### Solve, giving your answers to one decimal place.

\[2x^2 + 7x + 2 = 0\]

#### Calculate the area of the triangle.

![Triangle with base 12 cm, height 5 cm and one angle 100°]