**Cosine rule**

**Question 1**



Calculate the value of $x$ .
Give your answer correct to 1 decimal place.

$x=$ .......................... $ ^{°}$

 **(3 marks)**

**Question 2**



$XYZ$ is a triangle.

$XY=9.3$ cm$YZ=12.4$ cm
Angle $XYZ=38^{°}$

Work out the length of $XZ$ .
Give your answer correct to 3 significant figures.

 **..........................** cm

 **(3 marks)**

**Question 3**



 Calculate the length of *PR*.
Give your answer correct to 3 significant figures.

$PR=$ **..........................** cm

 **(3 marks)**

**Question 4**



Calculate the value of $x$ .
Give your answer correct to 1 decimal place.

$x=$ **..........................** $ ^{°}$

 **(3 marks)**

**Question 5**



 Calculate the perimeter of the triangle.
Give your answer correct to 1 decimal place.

 **..........................** cm

 **(4 marks)**

**Question 6**

 A circular clock face, centre *O*, has a minute hand *OA* and an hour hand *OB*. *OA* = 10 cm. *OB* = 7 cm.

 Calculate the length of *AB* when the hands show 5 o’clock.
Give your answer correct to 3 significant figures.



 **..........................** cm

 **(4 marks)**

**Question 7**

 The diagram shows triangle *LMN*.



 Calculate the length of *LN.*
Give your answer correct to 3 significant figures.

 **..........................** cm

 **(5 marks)**

**Answers**

**Question 1**

$x=$ 30.8 $ ^{°}$



**Question 2**

any value in the range 7.64 cm to 7.65 cm



**Question 3**

$PR=$ 15.0 cm



**Question 4**

$x=$ 104.5 $ ^{°}$



**Question 5**

 58.3 cm



**Question 6**

 16.4 cm



**Question 7**

any value in the range 3.73 cm to 3.74 cm

