Triangles, Sine and Cosine Rules – Section Test

1) The exact value of $\cos 120°$ is given in its simplest form as a fraction $\frac{a}{b}$ with any negatives in the numerator where a and b are integers. What are the values for a and b ?

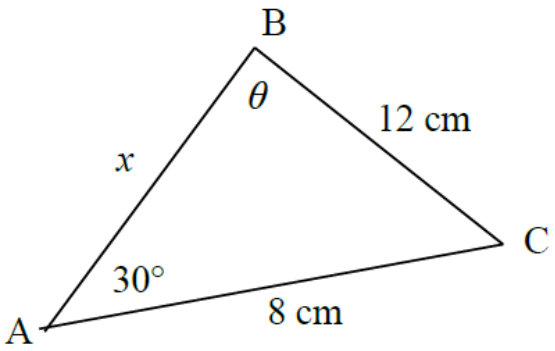
2) The exact value of $\sin 120°$ given in its simplest form as a fraction $\frac{\sqrt{a}}{b}$ with any negatives in the numerator where a and b are integers. What are the values for a and b ?

3) The exact value of $\tan^2 30° + \tan^2 60°$ is given in its simplest form as a fraction $\frac{a}{b}$ with any negatives in the numerator where a and b are integers. What are the values for a and b ?

4) The exact value of $\sin^2 60° + \cos^2 150°$ given in its simplest form as a fraction $\frac{a}{b}$ with any negatives in the numerator where a and b are integers. What are the values for a and b ?

5) For what values of x in the range $0° \le x \le 360°$ does $\cos x = \frac{\sqrt{3}}{2}$?

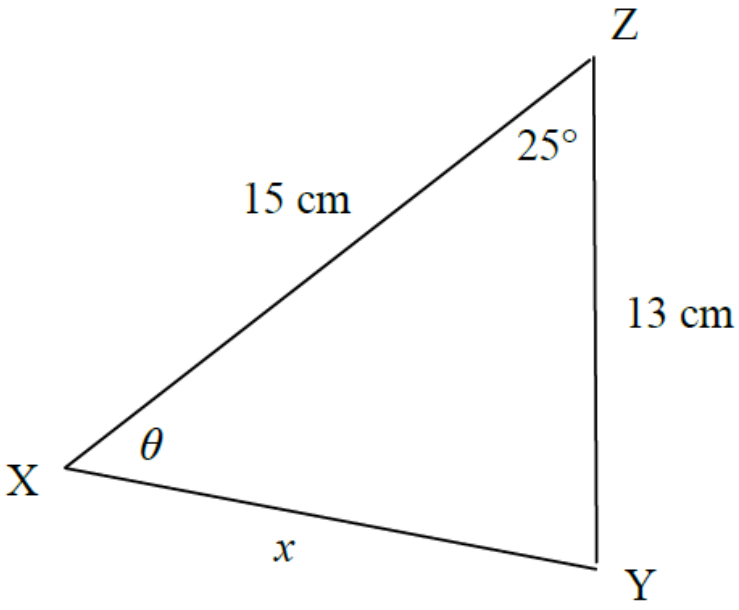
Questions 6 and 7 refer to the triangle ABC.



6) What is the angle ABC?

7) The side AB = ☐ cm (1.d.p.)

Questions 8, 9 and 10 refer to the triangle XYZ.



8) The side XY = ☐ cm

9) The angle θ = ☐ ° (3.s.f.)

10) The area of the triangle = ☐ cm^2 (3.s.f)