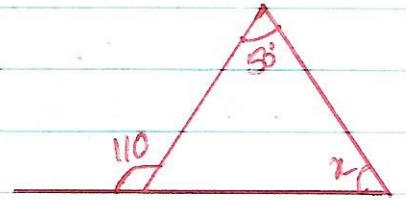
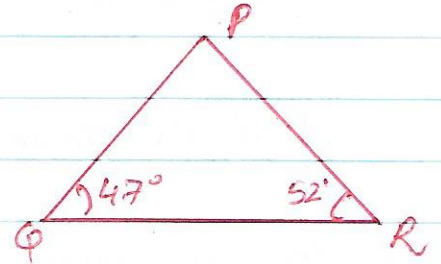


## Chapter 6: The Triangle and its Properties

1) Find the angle  $x$



2) In given figure find angle  $P$ .

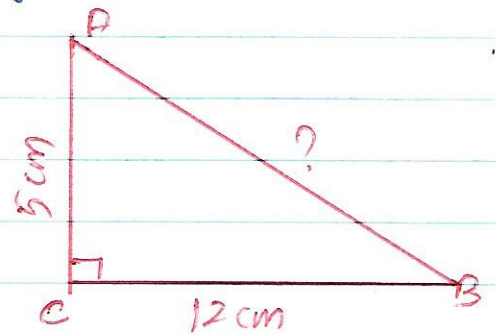


3) Is there a triangle whose sides have lengths  $10.2\text{ cm}$ ,  $5.8\text{ cm}$  and  $4.5\text{ cm}$ .

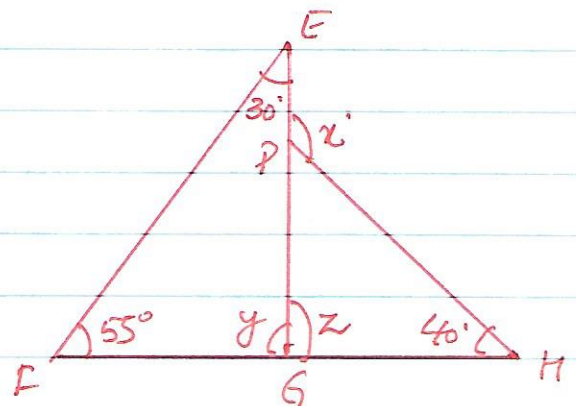
4) The lengths of two sides of a triangle are  $6\text{ cm}$  and  $8\text{ cm}$ . Between which two numbers can length of the third side fall?

5) Determine whether the triangle whose lengths of sides are  $3\text{ cm}$ ,  $4\text{ cm}$ ,  $5\text{ cm}$  is a right-angled triangle?

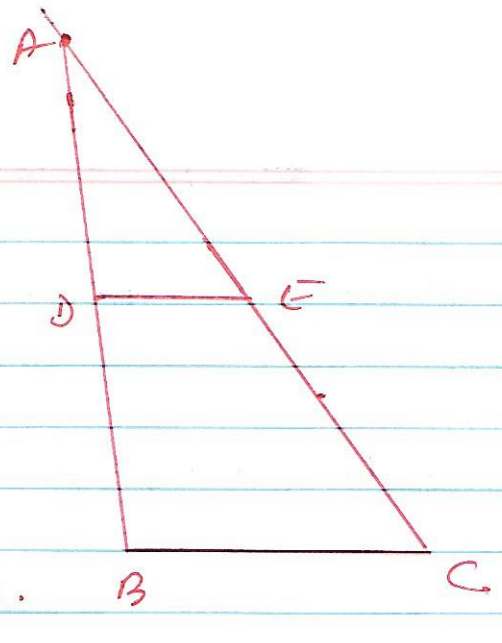
6.  $\triangle ABC$  is a right angled at  $C$ .  
If  $AC = 5\text{ cm}$  and  $BC = 12\text{ cm}$ ,  
find the length of  $AB$ .



7) Find the measure of angle  $x$ ,  $y$  and  $z$



- 8) In given figure,  $DE \parallel BC$  and  
 $\angle DAE = 30^\circ$ ,  $\angle ADE = y$   
 $\angle AED = x$ ,  $\angle ABC = x$



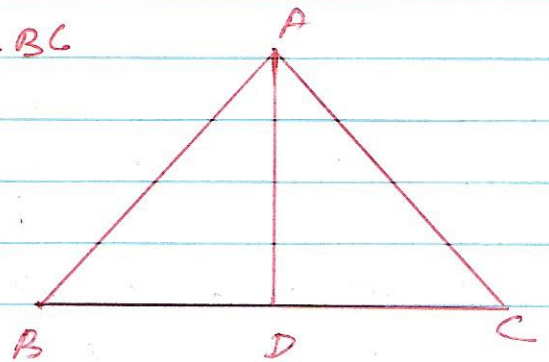
$$\angle AEB = 40.$$

Find the measures of angle  $x$  &  $y$ .

- 9) In the figure  $\angle B = \angle C$  and  $AD \perp BC$

$$AB = 20 \text{ cm} \quad AD = 12 \text{ cm}$$

Find the length of  $BC$ .



- 10) The degree measure of the angles of a triangle are  $(2x)^\circ$ ,  $(3x+10)^\circ$  and  $(5x-30)^\circ$ . Find the value of  $x$  and check whether the triangle is isosceles.