

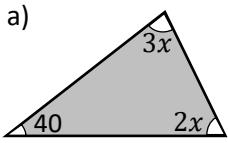
# Algebra (angles) in shapes

**111a**

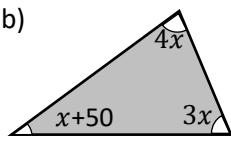
Name:



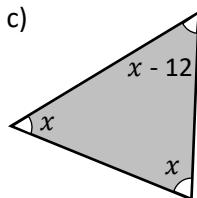
By forming an equation, calculate the value  $x$ :



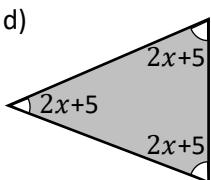
$$x = 28$$



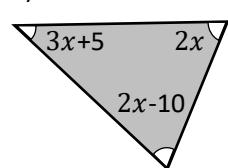
$$x = 16.25$$



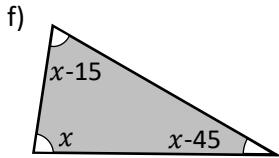
$$x = 64$$



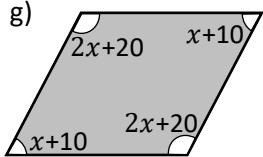
$$x = 27.5$$



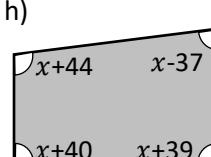
$$x = 26.43$$



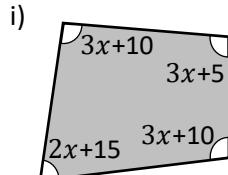
$$x = 80$$



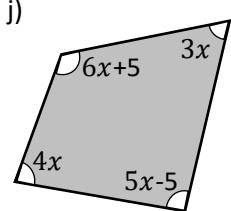
$$x = 50$$



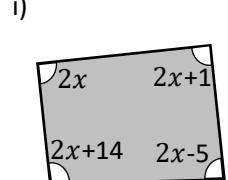
$$x = 68.5$$



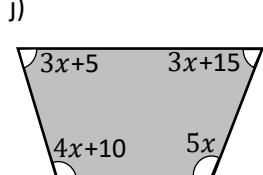
$$x = 29.09$$



$$x = 20$$



$$x = 43.75$$



$$x = 22$$

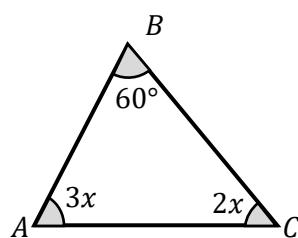
**Exam question:**

ABC is a triangle.

$\angle BAC = 3x$ ,  $\angle BCA = 2x$  and  $\angle ABC = 60^\circ$ .

Find the value of  $x$ .

$$x = 24$$



# Algebra (perimeter) in shapes

**111b**

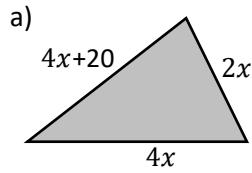
Name:



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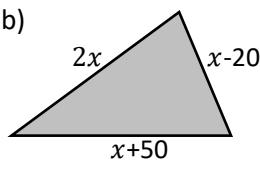
Write an algebraic expression for the perimeter of the following shapes:

Hence find the value of  $x$  for the given perimeters



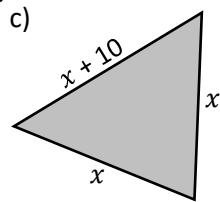
Perimeter = 200cm

$$x = 18$$



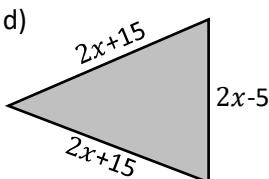
Perimeter = 110cm

$$x = 20$$



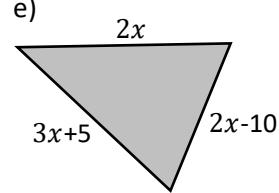
Perimeter = 190cm

$$x = 60$$



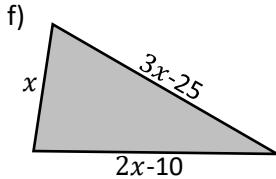
Perimeter = 385cm

$$x = 60$$



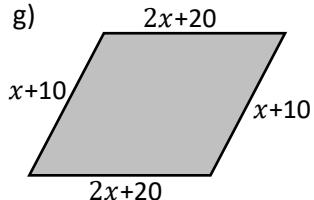
Perimeter = 275cm

$$x = 40$$



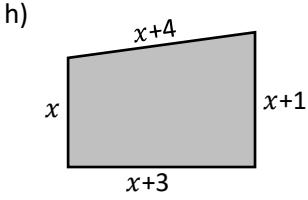
Perimeter = 115cm

$$x = 25$$



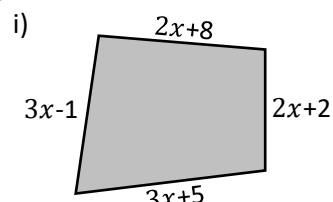
Perimeter = 78cm

$$x = 3$$



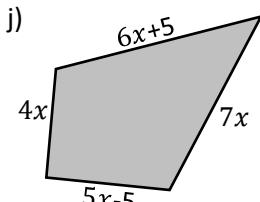
Perimeter = 40cm

$$x = 8$$



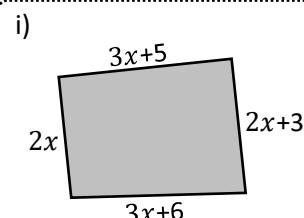
Perimeter = 84cm

$$x = 7$$



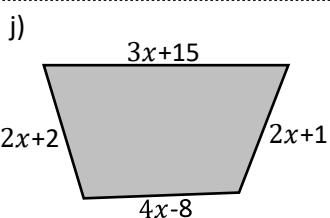
Perimeter = 88cm

$$x = 4$$



Perimeter = 74cm

$$x = 6$$



Perimeter = 230cm

$$x = 20$$

**Exam question:**

ABC is a triangle.

The length of AB =  $3x+2$ , BC =  $3x+5$  and AC =  $3x+4$

If the perimeter is 83cm, work out the value of  $x$

$$x = 8$$

