



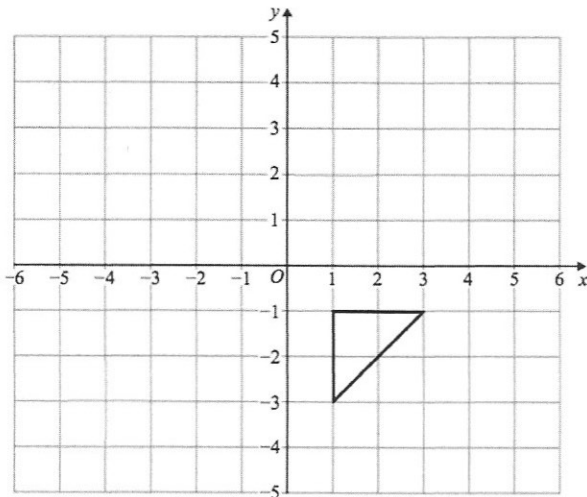
The longest side of a right angle triangle is $\sqrt{46}$ cm

One of the shorter sides has a length of $\sqrt{7}$ cm

What is the perimeter of the triangle?

$y^2 + (\sqrt{7})^2 = (\sqrt{46})^2$
 $y^2 + 7 = 46$
 $y^2 = 39$ $y = \sqrt{39}$

$\sqrt{7} + \sqrt{39} + \sqrt{46}$ cm



Shown is a triangle with points (1, -1), (3, -1) and (1, -3)

Describe a transformation such that one vertex is invariant.

Reflection, $x=3$

Describe a transformation such that two vertices are invariant.

Reflection, $y=-1$

The lines AB and BC are perpendicular.

The coordinates of point A are $(-18, -13)$
 The coordinates of point B are $(2, -3)$
 The coordinates of point C are (p, q)

Work out one possible pair of integer values for p and q

gradient of AB $\frac{-3 - (-13)}{2 - (-18)} = \frac{10}{20} = \frac{1}{2}$

gradient of BC = -2

$(3, -5)$

$p=3, q=-5$

$\xi = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16\}$

A = prime numbers $(2) 3 5 (7) 11 13$
 B = factors of 28 $1 (2) 4 (7) 14$

Complete the Venn diagram and find the probability of B given A.

$\frac{2}{6} = \frac{1}{3}$

