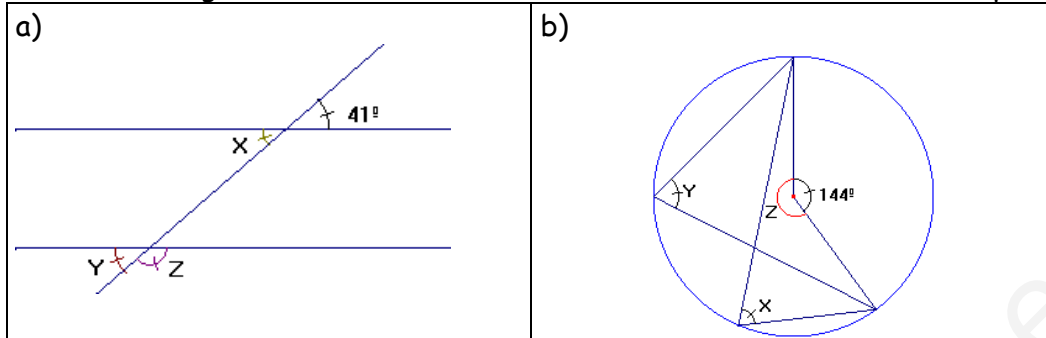


GEOMETRY

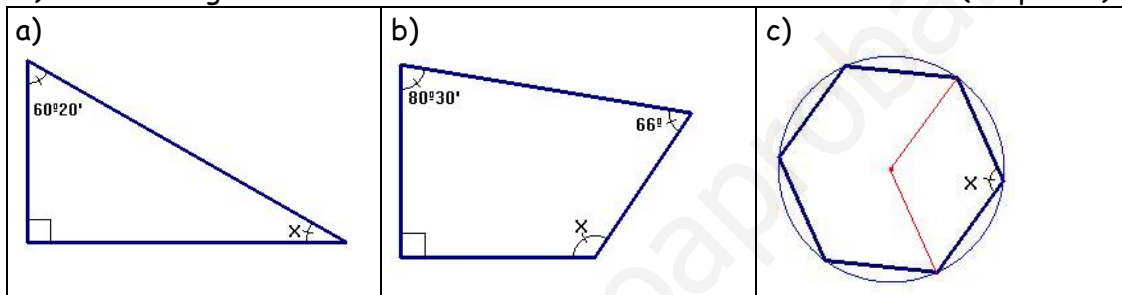
1) Find the angles X, Y and Z:

(1 point)



2) Find the angle X:

(1.5 points)



3) Complete:

(1.5 points)

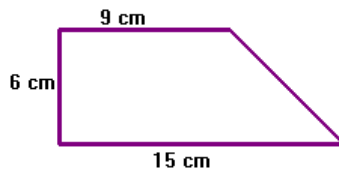
a) 8.72 km =	m	b) 825 cm ² =	m ²
c) 1.85 dam =	km	d) 2087 km ² =	hm ²
e) 1372 mg =	g	f) 25 kg =	g
g) 0.321 kg =	mg	h) 16 dL =	L

4) The legs of an isosceles right triangle are 7 cm long. Find the length of the hypotenuse (in millimetres).

(1 point)

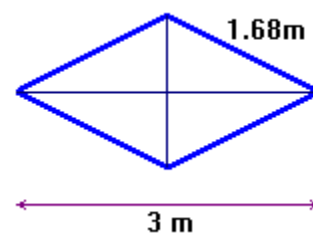
5) Calculate the perimeter of this trapezoid in decimetres (round to the nearest tenth).

(1.25 points)



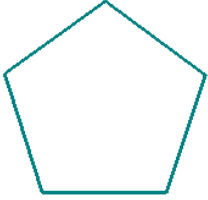
6) Find the missing diagonal of this rhombus in centimetres.

(1.25 points)



7) Complete:

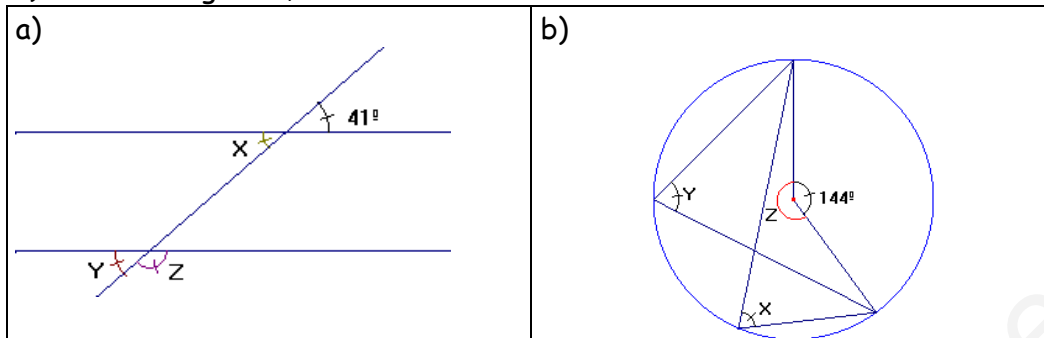
(1 point)

Shape	Name	Shape	Name
	Square		
			
			

8) Draw the axes of reflection symmetry in each picture of exercise 7 (1.5 points)

SOLUTION

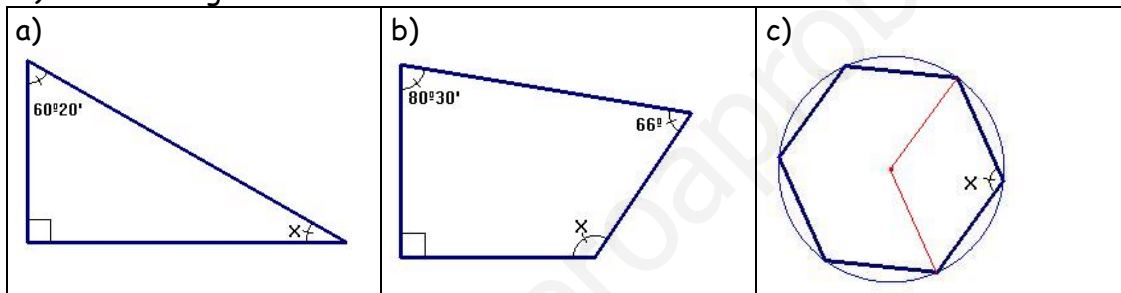
1) Find the angles X, Y and Z:



a) $X = 41^\circ$, $Y = 41^\circ$, $Z = 180 - 41 = 139^\circ$

b) $X = Y = 144^\circ : 2 = 72^\circ$ each; $Z = 360 - 144 = 216^\circ$

2) Find the angle X:



a) $X = 90^\circ - 60^\circ 20' = 29^\circ 40'$

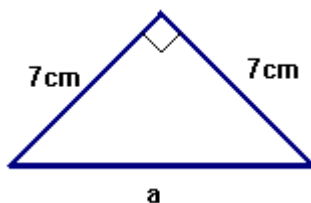
b) $X = 360^\circ - 90^\circ - 80^\circ 30' - 66^\circ = 123^\circ 30'$

c) Regular Hexagon $\rightarrow (n-2)180 = 4 \cdot 180 = 720^\circ \rightarrow X = 720 : 6 = 120^\circ$

3) Complete:

a) 8.72 km = 8720 m	b) 825 cm ² = 0.0825 m ²
c) 1.85 dam = 0.0185 km	d) 2087 km ² = 208700 hm ²
e) 1372 mg = 1.372 g	f) 25 kg = 25000 g
g) 0.321 kg = 321000 mg	h) 16 dL = 1.6 L

4) The legs of an isosceles right triangle are 7 cm long. Find the length of the hypotenuse (in millimetres).

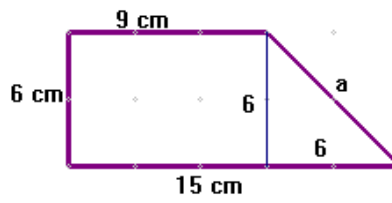


$$a^2 = 7^2 + 7^2 = 49 + 49 = 98$$

$$a = \sqrt{98} = 9.8994949 \text{ cm}$$

Solution: The hypotenuse is 98.99 mm long

5) Calculate the perimeter of this trapezoid in decimetres (round to the nearest tenth).



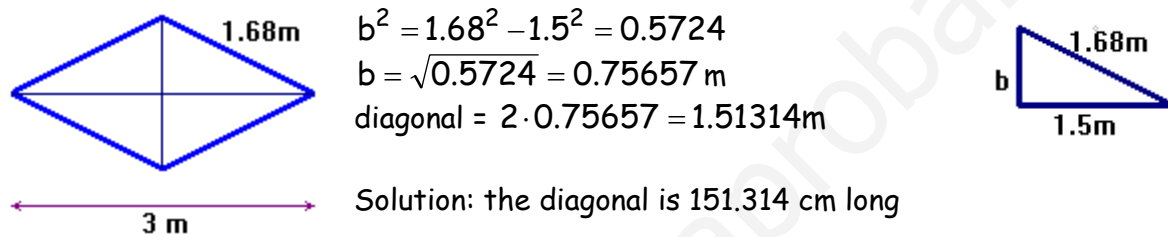
$$a^2 = 6^2 + 6^2 = 36 + 36 = 72$$

$$a = \sqrt{72} = 8.48528 \rightarrow a = 8.5 \text{ cm}$$

$$P = 9 + 6 + 15 + 8.5 = 38.5 \text{ cm}$$

Solution: The perimeter is 38.5 dm

6) Find the missing diagonal of this rhombus in centimetres.



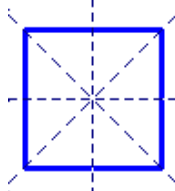
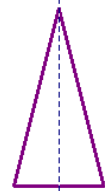
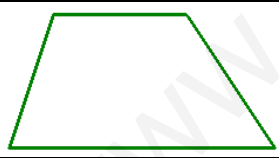
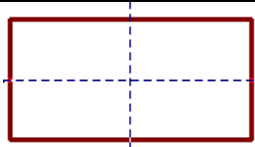
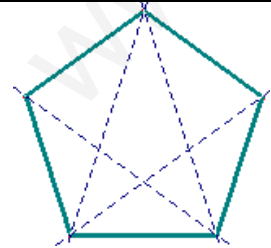
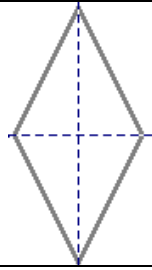
$$b^2 = 1.68^2 - 1.5^2 = 0.5724$$

$$b = \sqrt{0.5724} = 0.75657 \text{ m}$$

$$\text{diagonal} = 2 \cdot 0.75657 = 1.51314 \text{ m}$$

Solution: the diagonal is 1.51314 cm long

7) Complete:

Shape	Name	Shape	Name
	Square		Isosceles triangle
	Trapezoid		Rectangle
	Pentagon		Rhombus

8) Draw the axes of reflection symmetry in each picture of exercise 7 ↑