N5 Maths: Pythagoras' Theorem

Section A: 3D Pythagoras

Calculate the length of the space diagonal of each cuboid.

Q1 Length 6 cm, width 3 cm, height 2 cm

Q2 Length 6 mm, width 2 mm, height 9 mm

Q3 Length 14 m, width 5 m, height 2 m

Q4 Length 8 cm, width 7 cm, height 6 cm (to 1 decimal place)

Q5 Length 7.5 mm, width 6.4 mm, height 3.7 mm (to 2 decimal places)

Section B: Converse of Pythagoras

Work out whether or not each of the following triangles is right-angled. Justify each answer.

Q6 Lengths 12 cm, 5 cm and 13 cm

Q7 Lengths 45 mm, 28 mm and 53 mm

Q8 Lengths 10 cm, 10 cm and 14 cm

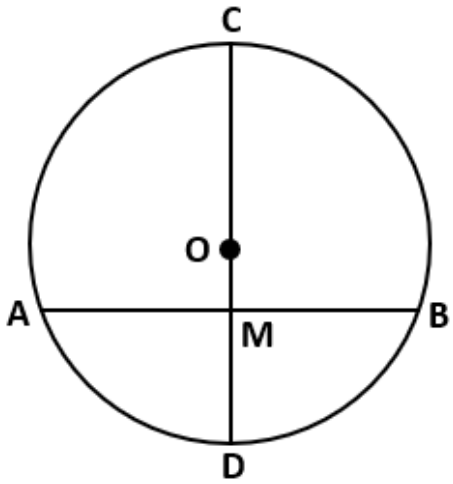
Q9 Lengths 2 m, 1.5 m and 2.5 m

Q10 Lengths 16 cm, 62 cm and 65 cm

Section C: Pythagoras in Circles

The following questions refer to the diagram of the circle to the right, which has not been drawn to scale.

O is the centre of the circle.
AB is a chord with mid-point M.
CD is a diameter.



Q11 Radius = 5 cm. AB = 8 cm. Find MD.

Q12 MB = 4 cm. CD = 10 cm. Find OM.

Q13 MD = 8 cm. OC = 13 cm. Find AB.

Q14 OM = 9.2 mm. OC = 21.6 mm. Find AB, to 1 decimal place.

Q15 AB = 2.7 m. CD = 3.2 m. Find AC, to 3 significant figures.

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