GCSE HIGHER · MIXED REVISION MAT 3

Mixed topics

1 Find the median and the range of

$$14, 9, 21, 17, 11, 25$$

2 Work out

$$64^{1/2} + 64^{1/3}$$

3 Show that $x = -1$ does not satisfy

$$3x + 7 > 5$$

4 A car travels 135 km at 90 km/h, then 60 km at 40 km/h.

Find its average speed for the whole journey.

5 Show that a cylinder with radius 4 cm and height 9 cm has volume 144π cm^3.

6 A rectangle's length is 3 cm more than twice its width.

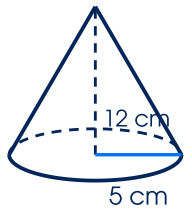
Its perimeter is 54 cm.

Find its area.

7 Two fair dice are rolled.

Show that P(at least one six) = $\frac{11}{36}$.

8 A solid is a cone of radius 5 cm and height 12 cm on top of a hemisphere of radius 5 cm.



Find its exact surface area.

ANSWERS · MIXED REVISION MAT 3

Mixed topics

1 9, 11, 14, 17, 21, 25

Median 15.5, range 16

2 8 + 4

12

3 −3 + 7 = 4

4 is not greater than 5

4 Times 1.5 h and 1.5 h

195 ÷ 3 = 65 km/h

5 **π × 16 × 9 = 144π**

6 $2(w + 2w + 3) = 54 \Rightarrow w = 8$

Length 19 cm

152 cm²

7 P(no sixes) = $\frac{25}{36}$

$1 - \frac{25}{36} = \frac{11}{36}$

8 Cone: slant 13, curved 65π

Hemisphere: 2π × 25 = 50π

115π cm²

Mr&Mrs MATHS