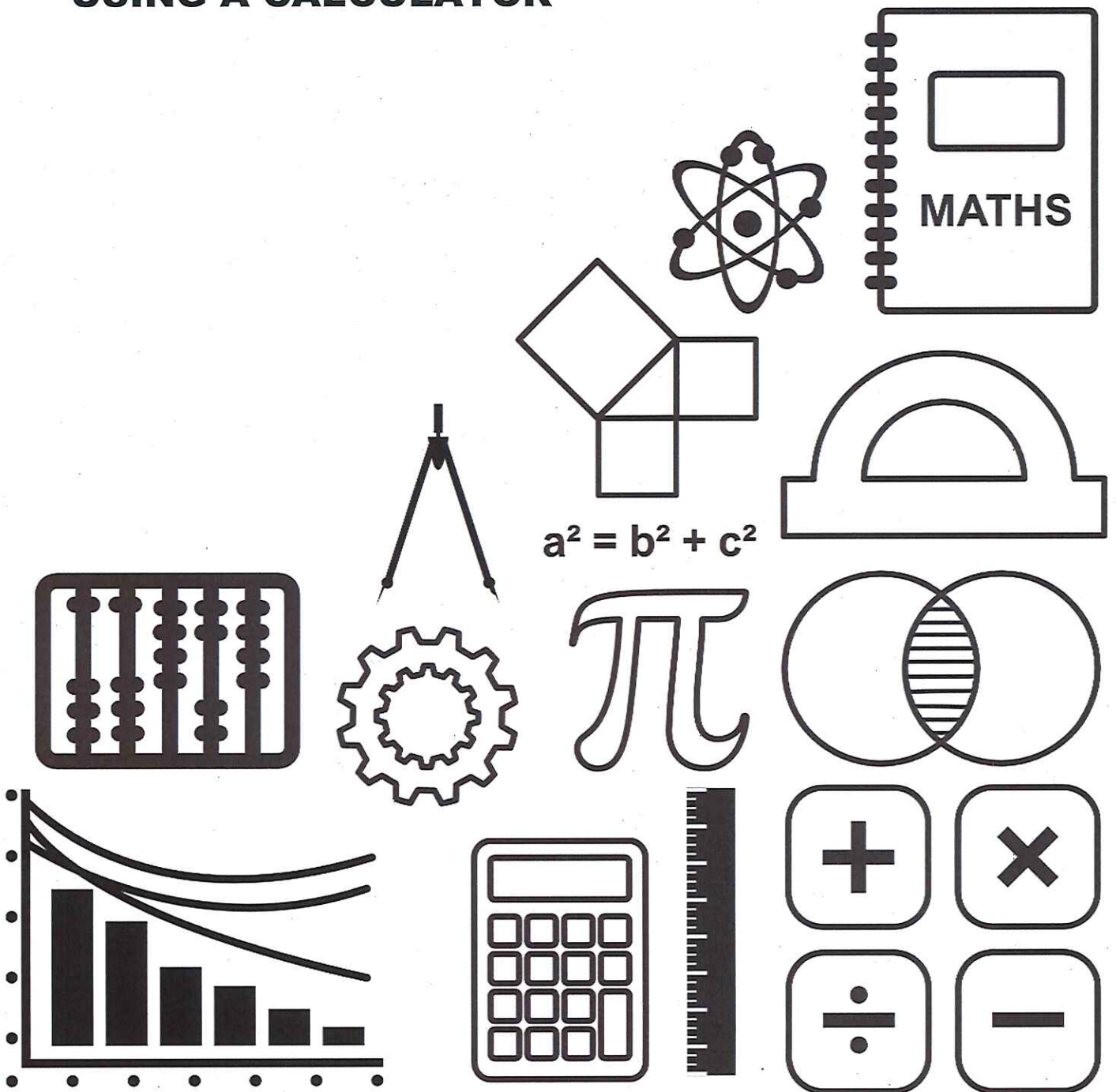


MATHS DIY

SOLUTIONS

GCSE TOPIC BOOKLET USING A CALCULATOR



1. Find $\sqrt{5 \cdot 23^2 + 3 \cdot 21^2}$ giving your answer correct to 3 significant figures.

$$= 6.136529964$$

$$= \underline{6.14} \text{ (3sf)}$$

[2]

2. Evaluate $\frac{2 \cdot 3 \times 4 \cdot 6}{5 \cdot 8 - 3 \cdot 6}$ correct to one decimal place.

$$= 4.809$$

$$= 4.8090909\dots$$

$$= \underline{4.8} \text{ (1dp)}$$

[2]

3. Evaluate $3\frac{2}{5} \times 1\frac{2}{3}$.

$$= \underline{\frac{17}{3}} \text{ or } \underline{5\frac{2}{3}}$$

[2]

4. Evaluate $3\frac{1}{5} \times 1\frac{1}{5}$.

$$= \underline{4}$$

[2]

5. Evaluate 3^{-4} .

$$= \underline{\frac{1}{81}}$$

[1]

6. Find the value of each of the following, giving your answers correct to 2 decimal places.

(i) $(2.34)^5 = 70.15833714$
 $= \underline{70.16} \text{ (2dp)}$

(ii) $\sqrt{3.45^3 - (5.6734 - 4.921)}$
 $= 6.349112143$
 $= \underline{6.35} \text{ (2dp)}$

[3]

7. Find the value of $\frac{2.6 \times 3.9}{4.8 - 1.5}$, giving your answer to 1 decimal place.

$= 3.072$
 $= 3.072727272$
 $= \underline{3.1} \text{ (1dp)}$

[2]

8. Calculate $\frac{5.6 \times 3.4}{8.1 - 2.7}$ giving your answer correct to two decimal places.

$= 3.5259 = 3.5259259...$
 $= \underline{3.53} \text{ (2dp)}$

[2]

9. Find $\frac{14.5 \times 33.4}{710.7 - 35.9}$ correct to two decimal places.

$= 0.71769413...$
 $= \underline{0.72} \text{ (2dp)}$

[2]

10. Find the value of $\sqrt{3 \cdot 27^2 - 2 \cdot 8}$ correct to **three significant figures**.

$$= 2.809430547 = \underline{\underline{2.81}} \quad (3sf)$$

[2]

11. Find $\sqrt{68^3}$ to **3 significant figures**.

$$= 17.73223054 = \underline{\underline{17.7}} \quad (3sf)$$

[2]

12. (i) Find $\sqrt{3 \cdot 61}$.

$$= \underline{\underline{1.9}}$$

(ii) Find the value of $\frac{1}{0.8^2}$.

$$= \underline{\underline{1.5625}} \quad \left(\frac{25}{16}\right)$$

(iii) Find the value of $2^4 \times 3^3$.

$$= \underline{\underline{432}}$$

(3)

13. Find the value of $(8 \times 10^3) - (2 \times 10^3)$.

$$= \underline{\underline{6000}}$$

[1]

14. Find, in standard form, the value of $\frac{4.6 \times 10^{-6}}{2 \times 10^{-4}}$

$$= \underline{\underline{0.023}}$$

[2]