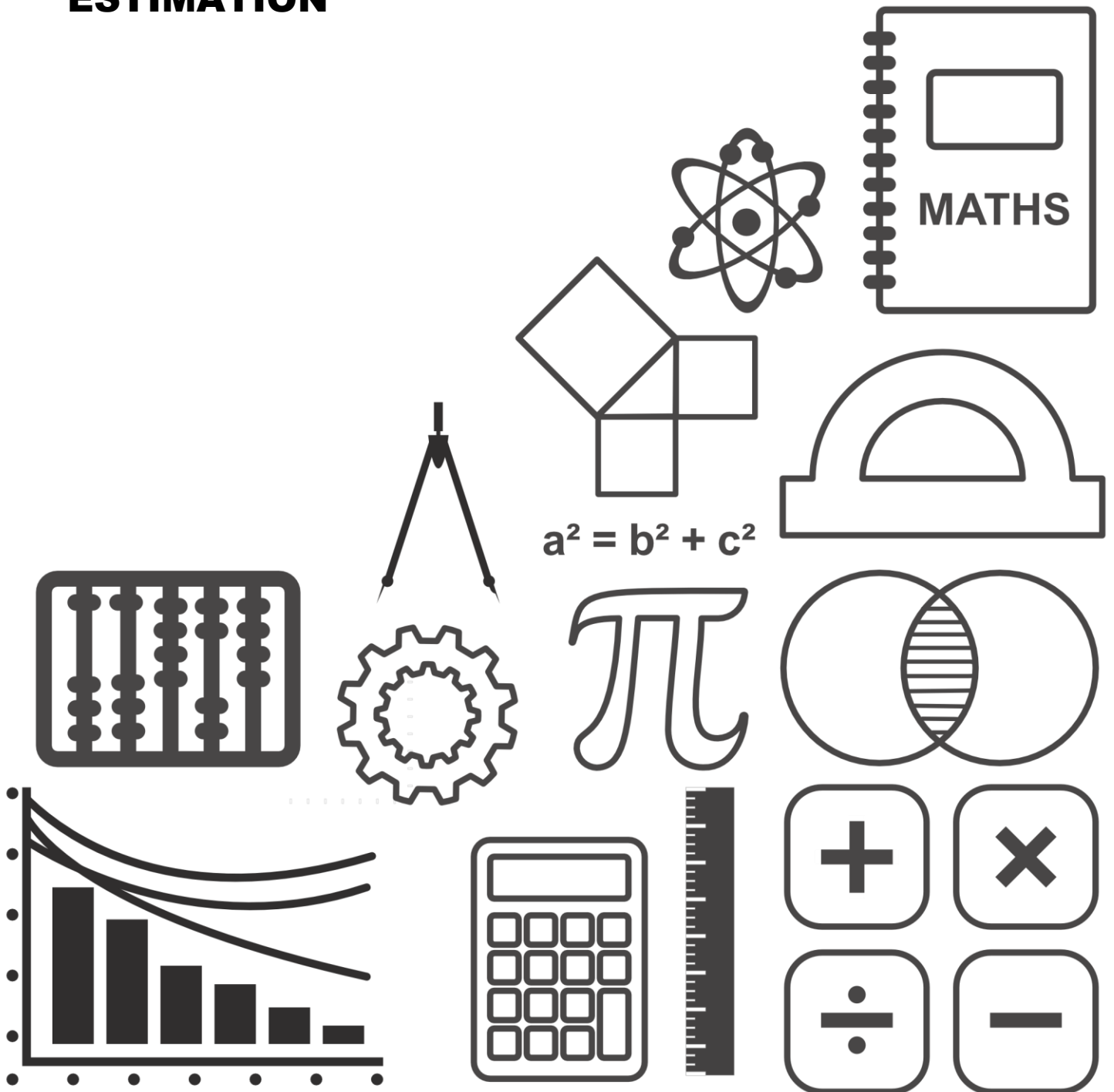


MATHSDIY

GCSE TOPIC BOOKLET ESTIMATION



DO NOT USE A CALCULATOR WHEN ANSWERING THESE QUESTIONS

1. Showing your working find an ESTIMATE for 198×12 .

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(2)

2. Clearly showing how you obtained your answer, ESTIMATE the value of:

$$\frac{48 \times 1577}{210}$$

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(2)

3. Show clearly how you would obtain an ESTIMATE for the following calculation.

$$\frac{96 \times 319}{82}$$

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(2)

4. ESTIMATE the value of:

$$\frac{58 \times 92}{487}$$

Show clearly how you obtain your answer.

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(2)

5. ESTIMATE the value of:

$$\frac{(4.768)^3 \times 0.42}{18.6 \times 0.037}$$

Show clearly how you obtain your answer.

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(3)

6. ESTIMATE the value of:

$$\frac{597 \times \sqrt{35.7}}{9.2}$$

Show clearly how you obtain your answer.

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(3)

7. Show clearly how you would obtain an ESTIMATE for the following calculation.

$$\frac{594.3 \times 7.6}{38.7}$$

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(2)

8. a) Showing all your working, find an ESTIMATE for the value of 9.1×29.8 .

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(2)

b) ESTIMATE the answer to 51×3.9 .

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(2)

c) Showing all your working, find an ESTIMATE for the value of $4012 \div 49$.

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(2)

d) Find an ESTIMATE for the value of 42.2×11.3 . Show all of your working.

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(2)

9. Show that $7.02^2 - 3.9^2$ is approximately 33.

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(2)

10. Showing all your working, find an ESTIMATE for the value of 5.17×9.8 .

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(2)

11. ESTIMATE the value of:

$$\frac{28.17 \times 0.48}{\sqrt{94.8}}, \text{ giving your answer as a decimal.}$$

Show clearly how you obtain your answer.

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(3)

12. Obtain an ESTIMATE for

$$\frac{0.21^2 \times 319.76}{38.7 \times 0.0186}$$

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(3)

13. Showing all your working, **estimate** the value of

$$\frac{2.09^3 \times \sqrt{98}}{0.196}$$

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(3)

14. Obtain an ESTIMATE of $\sqrt{24}$ to the nearest whole number

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(1)