

Rounding and Estimation

GCSE Mathematics • **Foundation Tier** • Grades 1–3 • Non-calculator

Name:

Class:

Total: / 41

Show all your working. Marks are given for correct method as well as the final answer.

1. Round 3 472 to the nearest 100. [1 mark]

Answer:

2. Round 8 149 to the nearest 1 000. [1 mark]

Answer:

3. Round 6.37 to 1 decimal place. [1 mark]

Answer:

4. Round 0.0842 to 2 decimal places. [2 marks]

Answer:

5. Round 12.96 to 1 decimal place. [2 marks]

Answer:

6. Round 47 382 to 1 significant figure. [2 marks]

Answer:

7. Round 0.00728 to 2 significant figures. [2 marks]

Answer:

8. Round 3 059 to 2 significant figures. [2 marks]

Answer:

9. Round 0.4961 to 3 significant figures. [2 marks]

Answer:

10. Estimate 41×19 by rounding each number to 1 significant figure. [2 marks]

Answer:

11. Estimate $\frac{612}{29}$. [2 marks]

Answer:

12. Estimate 8.7×3.2 . [2 marks]

Answer:

13. Estimate $\frac{39.4 \times 5.1}{9.8}$. [3 marks]

Answer:

14. Estimate $\sqrt{78}$. [2 marks]

Answer:

15. Estimate the value of $\frac{\sqrt{101}}{4.9}$. [3 marks]

Answer:

16. Rob estimates 29×41 as $30 \times 40 = 1200$. Is this an over- or under-estimate? Explain. [2 marks]

Answer:

17. A coach holds 52 people. 314 students need transport. Work out how many coaches are needed. [2 marks]

Answer:

18. A number n is 4.6 to 1 decimal place. Write down the smallest possible value of n . [2 marks]

Answer:

19. Round 2.9963 to 2 decimal places. [2 marks]

Answer:

20. A rectangle measures 19.2 cm by 4.8 cm.

(a) Estimate its area. [2 marks]

(b) Explain whether your estimate is bigger or smaller than the true area. [2 marks]

Answer: