



EXAM PRACTICE: NUMBER 1

Give all answers where appropriate as fractions or mixed numbers in their lowest terms.

1 Simplify a $\frac{14}{42}$ b $\frac{140}{42}$ c $\frac{1.4}{42}$ [3]

2 Calculate a $\frac{5}{12} \times 1\frac{1}{15}$ b $5\frac{1}{4} \div \frac{7}{8}$ [4]

3 Calculate $\frac{4}{9} + 1\frac{3}{4} - 1\frac{1}{12}$ [3]

4 Calculate a $3 + 2 \times (1 + 4)^2$
b $\frac{1}{2} + \frac{1}{2} \div \frac{5}{6}$ [4]

- 5 A recent survey has found that the Great Wall of China is more than twice as long as was previously thought. Its length is now given as 21 196.18 km.



Write this length

- a correct to 1 d.p. b correct to 1 s.f. [2]

- 6 The planning rules for a housing development state that $\frac{1}{3}$ of the houses should have three bedrooms, $\frac{3}{8}$ should have four bedrooms, $\frac{1}{24}$ should be executive homes and the rest should have two bedrooms.

- a What fraction of the houses have two bedrooms?
b If 24 houses have two bedrooms, how many houses are on the development? [5]

- 7 Olivia's fish tank contains $42\frac{2}{3}$ litres of water. She is emptying it out using a scoop which holds $1\frac{1}{3}$ litres of water. How many full scoops will it take to empty the tank? [4]



[Total 25 marks]

Answers

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- 1 ▶ a $\frac{1}{3}$ b $3\frac{1}{3}$ c $\frac{1}{30}$
2 ▶ a $\frac{4}{9}$ b 6
3 ▶ $1\frac{1}{9}$
4 ▶ a 53 b $1\frac{1}{10}$
5 ▶ a 21 196.2 km b 20 000 km
6 ▶ a $\frac{1}{4}$ b 96
7 ▶ 32