Find fractions of quantities

Question 1

Find:

a) $\frac{1}{2}$ of 32 b) $\frac{1}{2}$ of 49 c) $\frac{1}{3}$ of 27 d) $\frac{1}{4}$ of 128

e) $\frac{1}{7}$ of 245 f) $\frac{1}{10}$ of 420 g) $\frac{1}{8}$ of 84 h) $\frac{1}{9}$ of 4

Question 2

Find:

a) $\frac{2}{3}$ of 12 b) $\frac{3}{4}$ of 24 c) $\frac{2}{5}$ of 35 d) $\frac{3}{8}$ of 256

e) $\frac{3}{7}$ of 119 f) $\frac{9}{10}$ of 9 g) $\frac{3}{2}$ of 30 h) $\frac{4}{3}$ of 2

Question 3

In each question, find the number.

a) $\frac{1}{2}$ of the number is 17 b) $\frac{1}{5}$ of the number is 12

c) $\frac{3}{4}$ of the number is 24 d) $\frac{5}{7}$ of the number is 105

e) $\frac{2}{9}$ of the number is 1 f) $\frac{7}{4}$ of the number is - 7

Question 4

The price of butter is £2.20. This price is increased by $\frac{1}{10}$.

Work out the new price of the butter.

Question 5

The price of a computer is £1640. This price is decreased by $\frac{2}{5}$.

Work out the new price of the computer.

Question 6

In a sale, the price of a toy is reduced by $\frac{1}{4}$.

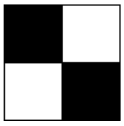
Some time later, this new price is increased by $\frac{1}{4}$.

The final price is £45.

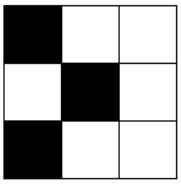
What was the original price of the toy?

Investigation

In how many ways can you shade $\frac{1}{2}$ of a 2 x 2 grid?



In how many ways can you shade $\frac{1}{2}$ of a 2 x 2 grid?



Can you extend your results to larger grids?

Answers

Question 1

Find:

b) $\frac{1}{2}$ of 32 = 16 b) $\frac{1}{2}$ of 49 = 24.5 c) $\frac{1}{3}$ of 27 = 9 d) $\frac{1}{4}$ of 128 = 32

e) $\frac{1}{7}$ of 245 = 35 f) $\frac{1}{10}$ of 420 = 42 g) $\frac{1}{8}$ of 84 = 10.5 h) $\frac{1}{9}$ of 4 = $\frac{4}{9}$

Question 2

Find:

a) $\frac{2}{3}$ of 12 = 8 b) $\frac{3}{4}$ of 24 = 18 c) $\frac{2}{5}$ of 35 = 14 d) $\frac{3}{8}$ of 256 = 96

e) $\frac{3}{7}$ of 119 = 51 f) $\frac{9}{10}$ of 9 = 8.1 g) $\frac{3}{2}$ of 30 = 45 h) $\frac{4}{3}$ of 2 = $\frac{8}{3}$ *or* $2\frac{2}{3}$

Question 3

In each question, find the number.

b) $\frac{1}{2}$ of the number is 17 = 34 b) $\frac{1}{5}$ of the number is 12 = 60

c) $\frac{3}{4}$ of the number is 24 = 32 d) $\frac{5}{7}$ of the number is 105 = 147

e) $\frac{2}{9}$ of the number is 1 = $\frac{9}{2}$ f) $\frac{7}{4}$ of the number is - 7 = - 4

Question 4

The price of butter is £2.20. This price is increased by $\frac{1}{10}$.

Work out the new price of the butter. = £2.42

Question 5

The price of a computer is £1640. This price is decreased by $\frac{2}{5}$.

Work out the new price of the computer. = £984

Question 6

In a sale, the price of a toy is reduced by $\frac{1}{4}$.

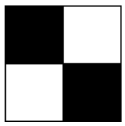
Some time later, this new price is increased by $\frac{1}{4}$.

The final price is £45.

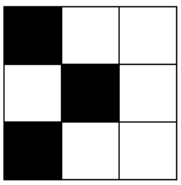
What was the original price of the toy? = £48

Investigation

In how many ways can you shade $\frac{1}{2}$ of a 2 x 2 grid?



In how many ways can you shade $\frac{1}{2}$ of a 2 x 2 grid?



Can you extend your results to larger grids?