

Name: Class:

Fraction of a number: Word problems

a. There are 24 pupils in Mr. Smith's class, out of these 24 pupils, $\frac{1}{4}$ are boys. How many boys are there in Mr. Smith's class?

b. Yesterday, Awah bought a whole cake. She divided it into 15 slices. Out of the 15 slices, she gave $\frac{2}{3}$ of a slice and $\frac{1}{5}$ of a slice to her younger daughter and eldest daughter respectively. How many slices of cake did each daughter get?



c. Out of the 12 candidates that won the context, three quarters of them are black Americans. How many candidates in the context were black Americans and how many candidates were other races?

Name: Class:

Fraction of a number: Word problems

- a. There are 24 pupils in Mr. Smith's class, out of these 24 pupils, $\frac{1}{4}$ are boys. How many boys are there in Mr. Smith's class?

Number of pupils in Mrs. Smith's class = 24

Fraction of pupils that are boys = $\frac{1}{4}$

So, number of boys in Mrs. Smith's class = $\frac{3}{4}$ of 24 = $\frac{1 \times 24}{4}$ = 6 boys

Therefore, there are 6 boys in Mrs. Smith's class

- b. Yesterday, Awah bought a whole cake. She divided it into 15 slices. Out of the 15 slices, she gave $\frac{2}{3}$ of a slice and $\frac{1}{5}$ of a slice to her younger daughter and eldest daughter respectively. How many slices of cake did each daughter get?

Number of slices of the whole cake = 15

Fraction of cake she gave to her younger daughter = $\frac{2}{3}$

So, number of slices of cake the younger daughter got = $\frac{2}{3}$ of 15

$$= \frac{2 \times 15}{3} = \frac{30}{3} = \frac{10 \times 3}{1 \times 3} = 10 \text{ slices}$$

Fraction of cake she gave to her eldest daughter = $\frac{1}{5}$

So, number of slices of cake the eldest sister got = $\frac{1}{5}$ of 15

$$= \frac{1 \times 15}{5} = \frac{15}{5} = \frac{3 \times 5}{1 \times 5} = 3 \text{ slices.}$$



- c. Out of the 12 candidates that won the context, three quarters of them are black Americans. How many candidates in the context were black Americans and how many candidates were other races?

Number of candidates who won the context = 12

Fraction of candidates that are black Americans = $\frac{3}{4}$

So, number of candidates that are black Americans = $\frac{3}{4}$ of 12

$$= \frac{3 \times 12}{4} = \frac{36}{4} = \frac{9 \times 4}{1 \times 4} = 9 \text{ candidates}$$

Now, let's subtract 9 from 12 to get the number of candidates that were other races

$$12 - 9 = 3 \text{ candidates}$$

So, 3 candidates were other races.