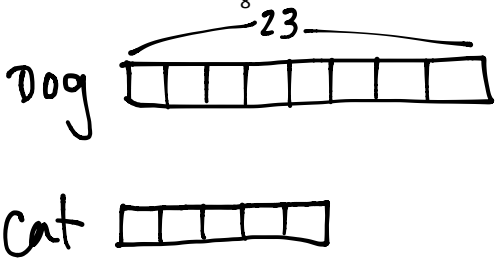
Name _____ Date _____

1. Jesse takes his dog and cat for their annual vet visit. Jesse's dog weighs 23 pounds. The vet tells him his cat's weight is $\frac{5}{8}$ as much as his dog's weight. How much does his cat weigh?

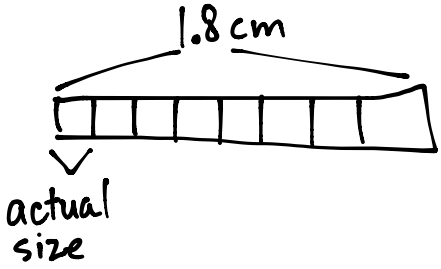


$\frac{5}{8}$ of $23 = \frac{5 \times 23}{8}$

$= \frac{115}{8}$

$= 14\frac{3}{8}$ lb or 14.375 lb

2. An image of a snowflake is 1.8 centimeters wide. If the actual snowflake is $\frac{1}{8}$ the size of the image, what is the width of the actual snowflake? Express your answer as a decimal.



$\frac{1}{8}$ of $1.8 = \frac{1}{8} \times \frac{18}{10}$

$= \frac{1 \times 18^{9}}{4 \times 10}$

$= \frac{9}{40} \times \frac{25}{25} = \frac{225}{1000} = 0.225$

The snowflake is 0.225 cm wide

3. A community bike ride offers a short ride for children and families, which is 5.7 miles, followed by a long ride for adults, which is $5\frac{2}{3}$ times as long. If a woman bikes the short ride with her children, and then the long ride with her friends, how many miles does she ride altogether?

$5\frac{2}{3} \times 5.7 = 5\frac{2}{3} \times 5\frac{7}{10}$

$= \frac{17}{3} \times \frac{57}{10}$

$= \frac{17 \times 57^{19}}{1 3 \times 10}$

$= \frac{323}{10} = 32.3$ miles

$$\begin{array}{r} {}^{1} \\ 32.3 \\ +\ 5.7 \\ \hline 38.0 \end{array}$$

She rides 38 miles altogether.

4. Sal bought a house for \$78,524.60. Twelve years later he sold the house for $2\frac{3}{4}$ times as much. What was the sale price of the house?

$2\frac{3}{4} = 2.75$

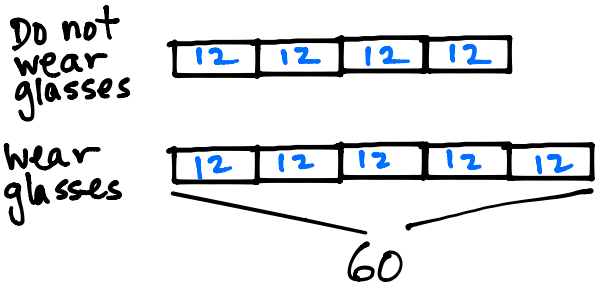
78524.60 → 7852460 hundredths

× 2.75 → × 275 hundredths

39262300
549672200
+ 157049200 0
2159426500 ten thousandths

215942.6500 = \$215,942.65

5. In the fifth grade at Lenape Elementary School, there are $\frac{4}{5}$ as many students who do not wear glasses as those who do wear glasses. If there are 60 students who wear glasses, how many students are in the fifth grade?



5 units = 60

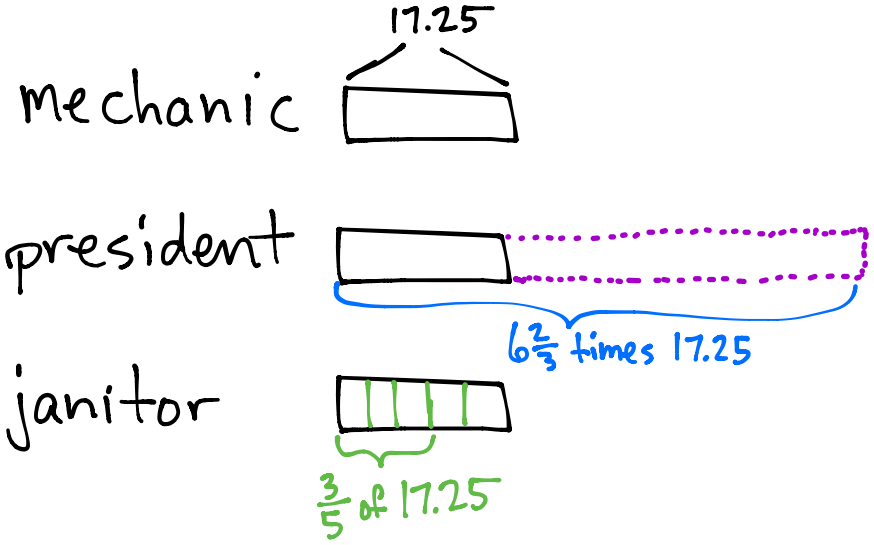
1 unit = 60 ÷ 5 = 12

9 units = 108

12 × 9 = 108

There are 108 5th grade students

6. At a factory, a mechanic earns \$17.25 an hour. The president of the company earns $6\frac{2}{3}$ times as much for each hour he works. The janitor at the same company earns $\frac{3}{5}$ as much as the mechanic. How much does the company pay for all three people employees' wages for one hour of work?



President

$6\frac{2}{3} \times 17.25$

$= 6\frac{2}{3} \times 17\frac{1}{4}$

$= \frac{20}{3} \times \frac{69}{4}$

$= \frac{5\ 20 \times 69\ 23}{1\ 3 \times 4\ 1}$

$= 115$

Janitor

$\frac{3}{5}$ of 17.25

$= \frac{3}{5} \times 17\frac{1}{4}$

$= \frac{3}{5} \times \frac{69}{4}$

$= \frac{207}{20}$

$= 10\frac{7}{20} = 10\frac{35}{100}$

$= 10.35$

Total: 17.25 + 115 + 10.35 = 142.6 = \$142.60