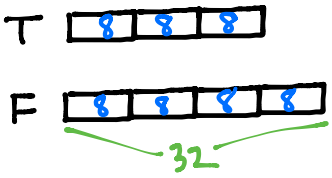
Name _____ Date _____

1. Terrence finished a word search in $\frac{3}{4}$ the time it took Frank. Charlotte finished the word search in $\frac{2}{3}$ the time it took Terrence. Frank finished the word search in 32 minutes. How long did it take Charlotte to finish the word search?

Terrence
$\frac{3}{4}$ of 32
$= \frac{3}{4} \times 32$
$= \frac{3 \times 32^{8}}{1 \cancel{4}}$
$= 24$ min.

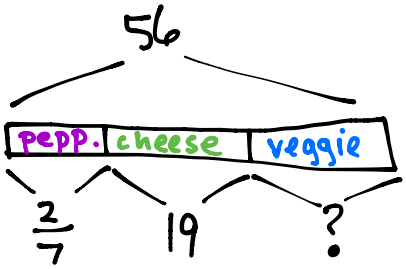
Charlotte
$\frac{2}{3}$ of 24
$= \frac{2}{3} \times 24$
$= \frac{2 \times \cancel{24}^{8}}{1 \cancel{3}}$
$= 16$ min

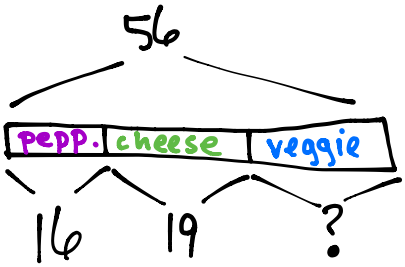
Frank
32 min



It takes 16 minutes for Charlotte to finish.

2. Ms. Phillips ordered 56 pizzas for a school fundraiser. Of the pizzas ordered, $\frac{2}{7}$ of them were pepperoni, 19 were cheese, and the rest were veggie pizzas. What fraction of the pizzas was veggie?





$\frac{2}{7}$ of 56
$= \frac{2}{7} \times 56$
$= \frac{2 \times \cancel{56}^{8}}{1 \cancel{7}}$
$= 16$ pepperoni pizzas

$56 - (16 + 19)$
$= 56 - 35$
$= 21$ veggie pizzas

$\frac{21}{56}$ (or $\frac{3}{8}$) of the pizzas were veggies.

3. In an auditorium, $\frac{1}{6}$ of the students are fifth graders, $\frac{1}{3}$ are fourth graders, and $\frac{1}{4}$ of the remaining students are second graders. If there are 96 students in the auditorium, how many second graders are there?

5th graders

$\frac{1}{6}$ of 96

$= \frac{1}{6} \times 96$

$= \frac{1 \times 96^{16}}{1 \cancel{6}}$

$= 16$

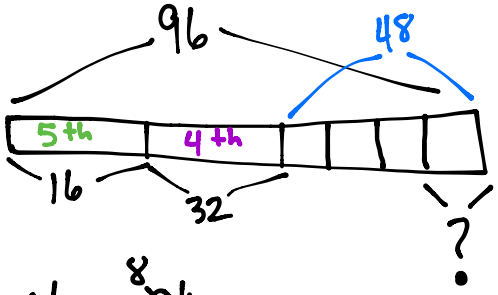
4th graders

$\frac{1}{3}$ of 96

$= \frac{1}{3} \times 96$

$= \frac{1 \times 96^{32}}{1 \cancel{3}}$

$= 32$



$16 + 32 = 48$

$8 \cancel{9}^{1}6 - 48 = 48$

2nd graders

$\frac{1}{4}$ of 48

$= \frac{1}{4} \times 48$

$= \frac{1 \times 48^{12}}{1 \cancel{4}}$

= 12 second graders

4. At a track meet, Jacob and Daniel compete in the 220-m hurdles. Daniel finishes in $\frac{3}{4}$ of a minute. Jacob finishes with $\frac{5}{12}$ of a minute remaining. Who ran the race in the faster time?

Daniel

$\frac{3}{4}$ of 60

$= \frac{3}{4} \times 60$

$= \frac{3 \times 60^{15}}{1 \cancel{4}}$

= 45 seconds

Jacob

$\frac{5}{12}$ of minute remaining $\Rightarrow \frac{7}{12}$ of a minute

$\frac{7}{12}$ of 60 $= \frac{7}{12} \times 60$

$= \frac{7 \times \cancel{60}^{5}}{1 \cancel{12}}$

= 35 seconds

Bonus: Express the difference in their times as a fraction of a minute.

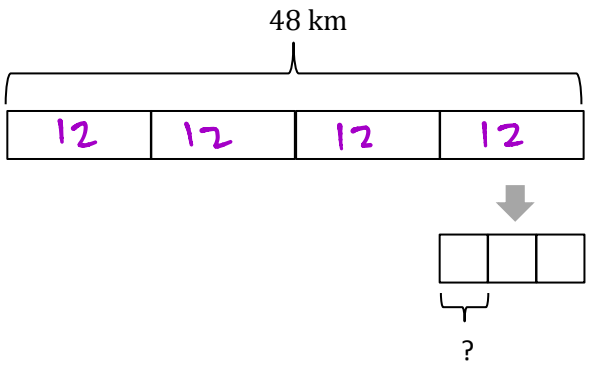
Difference $= 45 - 35$

$= 10$ seconds

$= \frac{1}{6}$ of a minute

$\frac{10}{60} = \frac{1}{6}$

5. Create and solve a story problem about a runner who is training for a race. Include at least one fraction in your story.



Running the same distance each day, a runner runs 48 km in 4 days. On the last day she ran around a lake three times. What is the distance around the lake?

1 big unit = $48 \div 4 = \frac{48}{4} = 12$

1 small unit = $12 \div 3 = \frac{12}{3} = 4$

The distance around the lake is 4 km.

6. Create and solve a story problem about a two friends and their weekly allowance whose solution is given by the expression $\frac{1}{5} \times (12 + 8)$.

Marta's allowance is \$12 each week. Janet's allowance is \$8 each week. They spend $\frac{1}{5}$ of their combined allowance to buy a bag of candy. How much money do they spend on the candy?