

Addition with fractions

On Monday Ava spent 4 and $\frac{8}{9}$ hours studying. On Tuesday she spent another 3 and $\frac{5}{6}$ hours studying. What is the combined length of time she spent studying?

$$4\frac{8}{9} + 3\frac{5}{6} =$$

$$4\frac{8}{9}\left(\frac{2}{2}\right) + 3\frac{5}{6}\left(\frac{3}{3}\right)$$

$$4\frac{16}{18} + 3\frac{15}{18} = 7\frac{31}{18} = 8\frac{13}{18}$$

Subtraction with fractions

Emily bought a bamboo plant that was 4 and $\frac{1}{2}$ feet high. When she got it home she cut 3 and $\frac{1}{6}$ feet off of it. How tall was the plant after she cut it down?

$$4\frac{1}{2} - 3\frac{1}{6} =$$

$$4\frac{1}{2} \left(\frac{3}{3}\right) - 3\frac{1}{6} =$$

$$4\frac{3}{6} - 3\frac{1}{6} = 1\frac{2}{6} = 1\frac{1}{3}$$

Division with fractions

An aquarium had 6 tons of fish food. How many months would it take them to use it all if they used one-seventh of a ton each month?

$$6 \div \frac{1}{7} = \frac{6}{1} \times \frac{7}{1} = 42$$

Division with fractions

A pet store had 4 cats to feed. If they only had one-fifth of a bag of cat food and each cat got the same amount, what fraction of the bag would each cat get?

$$\frac{1}{5} \div \frac{4}{1} = \frac{1}{5} \times \frac{1}{4} = \frac{1}{20}$$

Multiplication with fractions

Each student in Mr. Poer's class wrote a research paper that was 7 and $\frac{1}{2}$ pages long. If there are 24 students in Mr. Poer's classroom, how many pages total did they all write?

$$7\frac{1}{2} \times \frac{24}{1} = \frac{15}{2} \times \frac{24}{1} = \frac{360}{2} = 180$$

Addition with decimals

Steven, Aidan, and Cameron play wayyyy too much minecra. Their parents want to know how much minecra they all have played in a week. Steven played 20.36 hours last week. Aidan played 25.28 hours. Cameron played for 27.82 hours last week. Altogether, how long did the three of them play minecra last week?

$$\begin{array}{r} 20.36 \\ 25.28 \\ 27.82 \\ \hline 73.46 \end{array}$$

Subtraction with Decimals

Dakota and Cordelia have a compeon to see who can run the furthest. Dakota ends up running 12.75 kilometers. Cordelia runs 15.06 kilometers. Who ran the farthest? How much farther?

$$\begin{array}{r} 15.06 \\ - 12.75 \\ \hline 2.31 \end{array}$$

Multiplication with Decimals

Daniela has a lot of pictures of ~~unicorns~~ ^{pegasi} on her computer. Each picture takes up 120.45mb of space. If she has 35 pictures, how much space are all of her pictures taking up?

$$\begin{array}{r} 120.45 \\ \times 35 \\ \hline 602.25 \\ 3613.5 \\ \hline 4215.75 \end{array}$$

Division with Decimals

Hector brought in 37.5 cupcakes for his birthday. He split them up among his table of five students evenly. How many cupcakes did each person at his table get?

$$\begin{array}{r} 7.5 \\ 5 \overline{) 37.5} \\ \underline{35} \\ 25 \end{array}$$

$$37.5 \div 5$$

Area, and division with decimals

Cassidy got tomato sauce all over Mr. Poer's newly painted wall, so she had to repaint it. Each bucket of paint will cover 50 square feet. If the wall is 30 long and 12.5 high, how many buckets of paint will she need to paint the wall?

$$\begin{array}{r} 12.5 \\ \times 30 \\ \hline 375 \end{array}$$

$$\begin{array}{r} 7.5 \\ 50 \overline{) 375.0} \\ \underline{350} \downarrow \\ 250 \end{array}$$

Volume, and division

Paul creates a mystery box that he shows the class. He tells the class that he can fit 320 1cm cubes into the box perfectly. He lets them know that the length of the box is 4 cm, and the height is 10cm. What is the width of the box?

$$40 \times ? = 320$$

$$320 \div 40 = 8 \text{ cm}$$

