

Caitlyn just got a new puppy. She wants to fence in a small area of her yard for the puppy to run. If the rectangular section she wa to fence in is 21 yards long and 37 feet wide, how many feet of fencing does Caitlyn need?

Step 1 Convert yds. to feet
 $21 \text{ yd.} = 63 \text{ ft.}$

yd. $\frac{1}{3}$ ft. $\frac{1}{3} \times 21 = 7$

63 ft. $\frac{1}{3} \times 37 = 12\frac{2}{3}$

63 ft. $\frac{1}{3} \times 37 = 12\frac{2}{3}$

21 yd. = 63 ft.

Step 2 Add up the lengths of all four sides (the perimeter) to see how much she needs.

$$\begin{array}{r} 63 \\ 63 \\ + 37 \\ \hline 200 \text{ ft.} \end{array}$$

If her dad has 175 feet of fencing left over from a different project he did, will Caitlyn have enough wood with the leftover or does she need to buy some more?

She needs to buy more because 200 ft. is greater than 175 ft.

How much extra does she have OR how much more does she need to buy?

$$\begin{array}{r} 200 - \text{Needs} \\ - 175 - \text{Has} \\ \hline 25 \text{ ft. more} \end{array}$$

Adrea is going to have $1\frac{1}{2}$ feet of her hair cut and donated to an organization which makes wigs for children with cancer. How many inches of hair is Adrea going to donate?

Convert feet to inches

ft. $1\frac{1}{2}$

in. 12

$$12 \cdot 1\frac{1}{2}$$

$$\frac{12}{1} \cdot \frac{3}{2} = \frac{36}{2} = 18 \text{ (then divide by 1)}$$

$$18 \div 1 = 18 \text{ inches}$$

Roxanne is $\frac{3}{4}$ as tall as her dad. Her dad is 6 feet tall. How tall is Roxanne in inches?

means to multiply

You can convert feet to inches first, then multiply by $\frac{3}{4}$...

ft. 6

in. 12

$$12 \times 6 = 72$$

$$72 \div 1 = 72 \text{ inches} = 6 \text{ ft.}$$

Now find $\frac{3}{4}$ of 72 in.

$$\frac{3}{4} \cdot \frac{72}{1} = \frac{54}{1} = 54 \text{ inches tall}$$

OR

You can do $\frac{3}{4}$ of 6 ft. first, then convert to inches.

$$\frac{3}{4} \cdot \frac{6}{1} = \frac{9}{2} = 4\frac{1}{2} \text{ ft}$$

Now convert ft. to inches..

ft. $4\frac{1}{2}$

in. 12

$$12 \cdot 4\frac{1}{2}$$

$$\frac{12}{1} \cdot \frac{9}{2} = \frac{54}{1} = 54$$

$$54 \div 1 = 54 \text{ inches tall}$$