**Dividing fractions using saguaros**

Exercise 1: Conversion

|  |  |  |  |
| --- | --- | --- | --- |
| Height in decimal | Height in fraction | Height in decimal | Height in fraction |
| 7.00 | 7/1 | 7.625 | 7625/1000 or 7 5/8 |
| 45.78 | 45 39/50 | 599.05 | 59905/100 or 599 1/20 |
| 310.10 | 310 1/10 | 500.50 | 50050/100 or 500 1/2 |
| 17.80 | 17 4/5 | 45.65 | 45 13/20 or 4565/100 |
| 444.90 | 444 9/10 | 200.25 | 20025/100 or 200 1/4 |
| 143.75 | 143 3/4 | 29.55 | 2955/100 or 29 11/20 |
| 300.45 | 300 9/20 | 1400.25 | 140025/100 or 1400 1/4 |

\*\* Saguaro Heights are in cm

Use the blank space to show your work.

45. 78 = 45 39/50

 45.78 = 45.78/1

 45.78/1 x 100/100 = 4578/100

 (4578/2) / (100/2) = 2289/50

 2289/50 = 45 39/50

310.10 = 310 1/10

 310.10 = 310.10/1

 310.10 /1 x 10/10 = 3101/10

 3101/10 = 310 1/10

Exercise 2: Dividing fractions by fractions

1. A group of students decide to measure the height of saguaros on a particular plot as part of their group project. However, by the end of the day, they have only measured saguaros on ¾ of the plot. If there were 5 students, what fraction of the plot has each student covered? Show your work.

(3/4) / (5/1)

3/4 x 1/5 = 3/20

3/20 per person

1. Inspired by their school project, Linda decides to measure the height of the saguaro growing in her backyard. She finds out that the saguaro is 8 ½ feet tall. How many of Linda’s height are needed to match the height of the saguaro? Linda is 4 feet tall.

8 ½ = 17/2

(17/2) / (4/1)

(17/2) x (1/4) = 17/8

17/8 = 2.125

1. Eric learns that saguaros can live up to 200 years! If the average life expectancy at birth for humans is 70 ½ years, how many human lifetimes would it take to reach 200 years?

200 / 70.5 = 2.84

1. Amanda decides to plant a row of saguaro seeds in her backyard. In order to do so, she will need about 2 3/5 square feet. Her backyard has 9 square feet. How many rows of saguaro can Amanda plant?

1 row = 2 3/5

x rows = 9

2 3/5 = 13/5

(9/1) / (13/5)

(9/1) x (5/13) = 45/13

45/13 = 3.46

3 rows!

1. Saguaros take a long time grow. If a 25 years old saguaro is 81.35 cm tall, how tall did it grow each year?

25/81.35 = 1/x

81.35 = 25x

81.25/25 = 3.254

3.254 cm / year

1. Anna is a Tohono O’odham native. During saguaro fruit picking season, she decides to save 11 of the saguaro fruits to give to her friends. If she wants to give 1 ¼ of saguaro fruits to each of her friends, how many of her friends will get some saguaro fruits?

11 / 1.25 = 8.8

She can give 1 ¼ saguaro fruits to 8 friends.