

Warm Up Grade 8

Dec. 6, 2022

1) Multiply and reduce the following

a) $\frac{12}{35} \times \frac{21}{20} = \frac{252}{700} \xrightarrow{\div 4} \frac{63}{175} \xrightarrow{\div 7} \frac{9}{25}$

b) $3 \frac{2}{7} \times \frac{1}{5} = \frac{23}{7} \times \frac{1}{5} = \frac{23}{35}$

OR

$\frac{12}{35} \times \frac{21}{20} = \frac{3}{5} \times \frac{3}{5} = \frac{9}{25}$

Using number lines to model

$7 \div \frac{3}{4}$ ← **Stop**

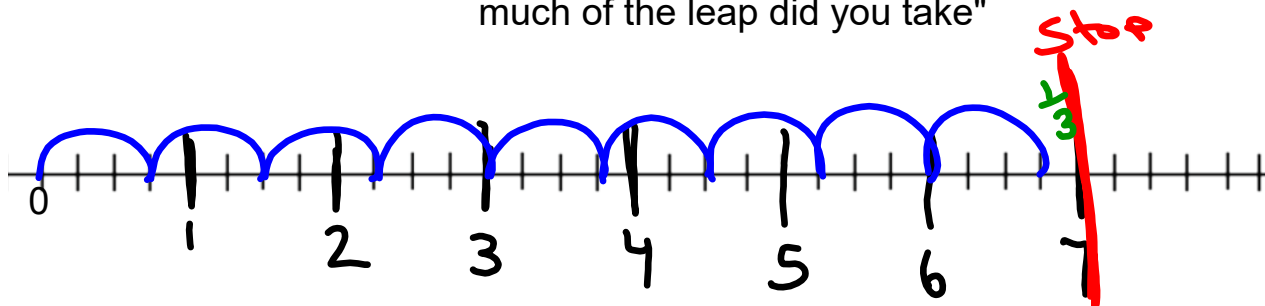
← **Jump size** step 1) Draw a number line and count by the unit fraction of $\frac{1}{4}$

4 ← **whole cut** up until 7

step 2) Do leaps of $\frac{3}{4}$

step 3) Count the leaps

* if you have partial leaps then the "how much of the leap did you take"



$7 \div \frac{3}{4} = 9 \frac{1}{3}$

$$6 \div \frac{3}{7}$$

↓ ↓
mult flip

$$\frac{6}{1} \times \frac{7}{3} = \frac{42}{3} = 14$$

$$5 \div \frac{2}{9}$$

↓ ↓

$$\frac{5}{1} \times \frac{9}{2} = \frac{45}{2} = 22 \frac{1}{2}$$

Recall

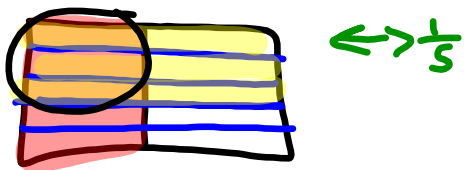
$$4 \times \frac{3}{5} = \frac{12}{5} = 2\frac{2}{5}$$



$$2\frac{2}{5}$$

Multiplication Modelling

$$\frac{1}{2} \times \frac{3}{5} = \frac{3}{10}$$



$$\frac{4}{5} \div \frac{3}{7}$$

↓ mult ↓ Flip

$$\frac{4}{5} \times \frac{7}{3} = \frac{28}{15} = 1 \frac{13}{15}$$

Using number lines to model

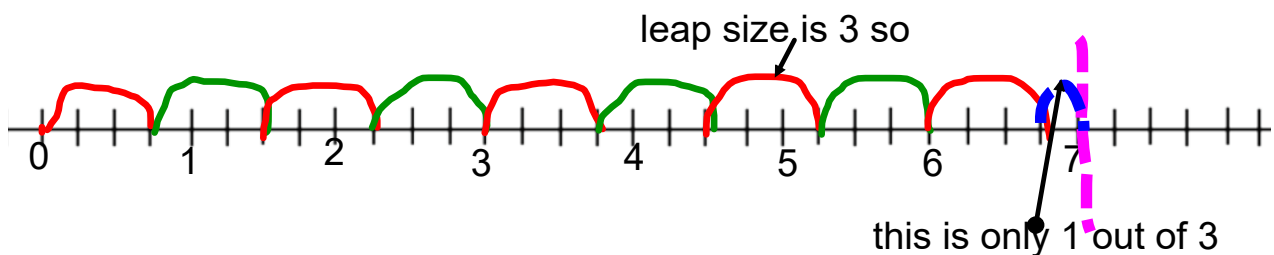
$$7 \div \frac{3}{4}$$

step 1) Draw a number line and count by the unit fraction of $\frac{1}{4}$ up until 6 4

step 2) Do leaps of $\frac{3}{4}$

step 3) Count the leaps

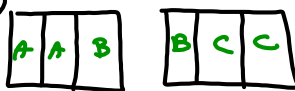
* if you have partial leaps then the "how much of the leap did you take"



$$7 \div \frac{3}{4} = 9 \frac{1}{3}$$

2. How many $\frac{2}{3}$ of a jar are in each number of jars?
 (a) 2 (b) 3 (c) 4 (d) 5 (e) 6

a)



$$2 \div \frac{2}{3} = 3$$


when counting you count what you coloured. (Here 2 blocks at a time are being coloured so if you don't colour in a whole then the fractions is ___)

b)




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

c) 4 boxes

$$4 \div \frac{2}{3} = 6$$


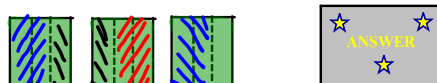
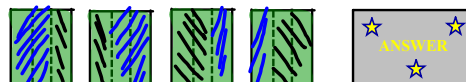
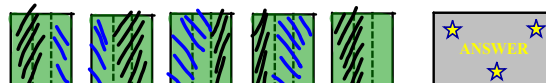
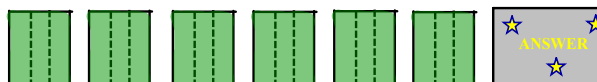
$$4 \times \frac{3}{2} = \frac{12}{2} = 6$$

d) $5 \div \frac{2}{3}$

$$5 \times \frac{3}{2} = \frac{15}{2} = 7 \frac{1}{2}$$


$$7 \frac{1}{2}$$

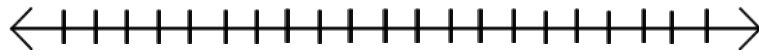
2. How many $\frac{2}{3}$ of a jar are in each number of jars?
 (a) 2 (b) 3 (c) 4 (d) 5 (e) 6

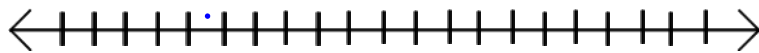
Homework Pg 110 #3-5 Sheet 4, 8 #7-10
 Write a rule for dividing fractions.

count by the unit fraction

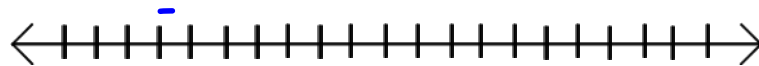
a) $4 \div \frac{3}{4}$



b) $3 \div \frac{5}{6}$



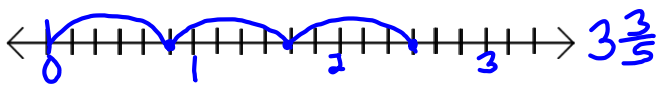
c) $2 \div \frac{7}{10}$



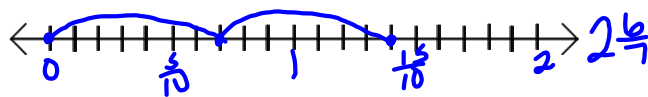
a) $4 \div \frac{3}{4}$



$3 \div \frac{5}{6}$



$2 \div \frac{7}{10}$



Homework
pg 132 #3-10



$$\begin{array}{l}
 2 \div \frac{1}{2} \Rightarrow 2 \times \frac{2}{1} = \frac{4}{1} \\
 4 \div \frac{1}{2} \Rightarrow 4 \times \frac{2}{1} = 8 \\
 3 \div \frac{2}{3} \Rightarrow 3 \times \frac{3}{2} = \frac{9}{2} \\
 5 \div \frac{2}{3} \Rightarrow 5 \times \frac{3}{2} = \frac{15}{2} \\
 2 \div \frac{3}{2} \Rightarrow 2 \times \frac{2}{3} = \frac{4}{3} \\
 6 \div \frac{3}{2} \Rightarrow 6 \times \frac{2}{3} = \frac{12}{3}
 \end{array}
 \qquad
 \begin{array}{l}
 \frac{1}{2} \Rightarrow \frac{2}{1} \\
 \frac{1}{2} \Rightarrow \frac{2}{1} \\
 \frac{2}{3} \Rightarrow \frac{3}{2} \\
 \frac{2}{3} \Rightarrow \frac{3}{2} \\
 \frac{3}{2} \Rightarrow \frac{2}{3} \\
 \frac{3}{2} \Rightarrow \frac{2}{3}
 \end{array}$$

Class/Homework

Use Fraction Rectangles or numberlines

Page 132 # 3(c,d)

#4(a,b,c,d)

#5(Use numberline),

#8(a i, ii)

#8(b, ii, iii)

#9(a,b)

#10(a,b,c)

Show all work

May want to
use different
colours

Flip & multiply

$$4 \div \frac{2}{3} = 6$$

← # of different Shapes

