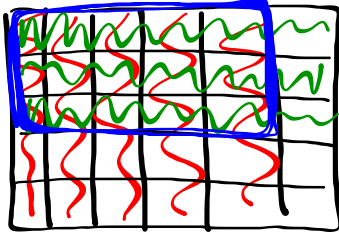


BEFORE Our Quiz

Reduce all answers

1) Use a rectangular box (grid paper) to multiply $\frac{3}{5} \times \frac{5}{6}$.

$$\frac{15}{30} \div \frac{15}{15} = \frac{1}{2}$$

→ 5

6

2) Multiply and reduce the following

$$\text{a) } \frac{4}{9} \times \frac{18}{14} = \frac{2 \times 2}{1 \times 7} = \frac{4}{7}$$

$$\text{b) } 3 \frac{1}{4} \times 5 \frac{1}{2}$$

$$\frac{13}{4} \times \frac{11}{2}$$

$$= \frac{143}{8}$$

$$= 17 \frac{7}{8}$$

$$\frac{4}{9} \times \frac{18}{14}$$

$$= \frac{72}{126} \div 2$$

$$= \frac{36}{63} \div 3$$

$$= \frac{12}{21} \div 3$$

$$= \frac{4}{7}$$

Go over homework pg. 128 # 2-10

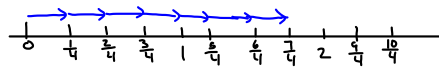
1) a) $4 \times \frac{1}{8}$
 $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} = \frac{4}{8} = \frac{1}{2}$

b) $7 \times \frac{3}{5}$
 $\frac{3}{5} + \frac{3}{5} + \frac{3}{5} + \frac{3}{5} + \frac{3}{5} + \frac{3}{5} + \frac{3}{5} = \frac{21}{5} = 4\frac{1}{5}$

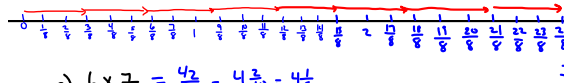
c) $\frac{5}{6} \times 3$
 $\frac{5}{6} + \frac{5}{6} + \frac{5}{6} = \frac{15}{6} = \frac{5}{2} = 2\frac{1}{2}$

d) $\frac{2}{9} \times 6$
 $\frac{2}{9} + \frac{2}{9} + \frac{2}{9} + \frac{2}{9} + \frac{2}{9} + \frac{2}{9} = \frac{12}{9} = \frac{4}{3} = 1\frac{1}{3}$

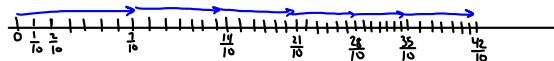
2) a) $\frac{1}{4} \times 7 = \frac{7}{4}$



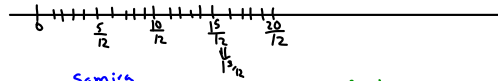
b) $8 \times \frac{3}{8} = \frac{24}{8} = 3$



c) $6 \times \frac{7}{10} = \frac{42}{10} = 4\frac{2}{5}$



d) $\frac{5}{12} \times 3 = \frac{15}{12} = 1\frac{1}{4}$



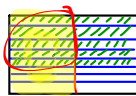
3) a) $\frac{1}{8}$ of 16 = 2
 $\frac{1}{4}$ of 16 = 4
 $\frac{1}{2}$ of 16 = 8

Shesha gave away $2 + 8 + 4 = 14$ tomatoes

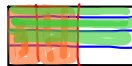
b) $16 - 14 = 2$ tomatoes left

c) $\frac{2}{16} = \frac{1}{8}$ left

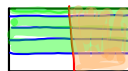
4) a) $\frac{5}{8} \times \frac{1}{2}$
 $= \frac{5}{16}$



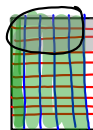
4) b) $\frac{2}{3} \times \frac{3}{4}$
 $= \frac{6}{12}$
 $= \frac{1}{2}$



4) c) $\frac{1}{2} \times \frac{4}{5}$
 $= \frac{4}{10}$
 $= \frac{2}{5}$



4) d) $\frac{5}{6} \times \frac{3}{10}$
 $= \frac{15}{60}$
 $= \frac{3}{12}$
 $= \frac{1}{4}$



$$5) \frac{1}{2} \times \frac{4}{9} \quad \begin{array}{l} \text{cancelling} \\ \frac{1 \times 4^2}{2 \times 9} \\ = \frac{4}{18} \div 2 \\ = \frac{2}{9} \end{array} \quad \begin{array}{l} = \frac{1 \times 2}{7 \times 9} \\ = \frac{2}{9} \end{array}$$

$$5b) \frac{2}{3} \times \frac{6}{15} \quad \begin{array}{l} \frac{2 \times 6^2}{3 \times 15} \\ = \frac{12}{45} \div 3 \\ = \frac{4}{15} \end{array} \quad \begin{array}{l} = \frac{2 \times 2}{7 \times 15} \\ = \frac{4}{15} \end{array}$$

$$5c) \frac{3}{4} \times \frac{8}{11} \quad \begin{array}{l} \frac{3 \times 8^2}{4 \times 11} \\ = \frac{24}{44} \div 4 \\ = \frac{6}{11} \end{array} \quad \begin{array}{l} = \frac{3 \times 2}{1 \times 11} \\ = \frac{6}{11} \end{array}$$

$$5d) \frac{2}{5} \times \frac{10}{12} \quad \begin{array}{l} \frac{2 \times 10^2}{5 \times 12} \\ = \frac{20}{60} \div 20 \\ = \frac{1}{3} \end{array} \quad \begin{array}{l} \frac{1 \times 2}{7 \times 6} \\ = \frac{2}{6} \div 2 \\ = \frac{1}{3} \end{array}$$

$$6a) \frac{1}{2} \times \frac{2}{3} \quad \begin{array}{l} \text{cancelling} \\ \frac{1 \times 2^1}{2 \times 3} \\ = \frac{2}{6} \\ = \frac{1}{3} \end{array} \quad \begin{array}{l} \frac{1 \times 1}{1 \times 3} \\ = \frac{1}{3} \end{array}$$

$$6b) \frac{4}{5} \times \frac{1}{4} \quad \begin{array}{l} \frac{4 \times 1}{5 \times 4} \\ = \frac{4}{20} \div 4 \\ = \frac{1}{5} \end{array} \quad \begin{array}{l} = \frac{1 \times 1}{5 \times 1} \\ = \frac{1}{5} \end{array}$$

$$6c) \frac{3}{4} \times \frac{3}{8} \quad \begin{array}{l} = \frac{9}{32} \end{array} \quad \begin{array}{l} 6d) \frac{4}{9} \times \frac{15}{18} \\ = \frac{60}{162} \div 6 \\ = \frac{10}{27} \end{array} \quad \begin{array}{l} \frac{4 \times 15^5}{3 \times 9 \times 18 \times 9} \\ = \frac{2 \times 5}{3 \times 9} \\ = \frac{10}{27} \end{array}$$

$$7) \frac{1}{5} \div \frac{2}{3} \\ \frac{1}{5} \times \frac{3}{2} \\ = \frac{3}{10} \text{ or } \frac{3}{10} \text{ from India}$$

$$8a) 2\frac{2}{3} \times 1\frac{7}{8} \quad \begin{array}{l} = \frac{8}{3} \times \frac{15}{8} \\ = \frac{18 \times 15^5}{18 \times 81} \\ = \frac{1 \times 5}{1 \times 1} \\ = \frac{5}{1} \\ = 5 \end{array} \quad \begin{array}{l} b) \frac{10}{3} \times \frac{5}{2} \\ = \frac{50 \times 5}{3 \times 21} \\ = \frac{5 \times 5}{3 \times 1} \\ = \frac{25}{3} \\ = 8\frac{1}{3} \end{array} \quad \begin{array}{l} c) 4\frac{3}{4} \times \frac{3}{8} \\ \frac{19}{4} \times \frac{3}{8} \\ = \frac{57}{32} \\ = 1\frac{25}{32} \end{array}$$

$$8d) 1\frac{5}{6} \times 4\frac{1}{2} \\ = \frac{11}{6} \times \frac{9}{2} \\ = \frac{11 \times 9^3}{26 \times 2} \\ = \frac{11 \times 3}{2 \times 2} \\ = \frac{33}{4}$$

$$\begin{array}{l}
 9) a) \quad 2\frac{1}{2} \times 3\frac{1}{4} \\
 \quad \quad \frac{5}{2} \times \frac{13}{4} \\
 \quad \quad = \frac{65}{8} \\
 \quad \quad = 8\frac{1}{8}
 \end{array}$$

$$b) \quad 4\frac{2}{5} \times \frac{1}{4}$$

$$\frac{22}{5} \times \frac{1}{4}$$

$$\frac{11 \times 1}{5 \times 2}$$

$$\frac{11 \times 1}{5 \times 2}$$

$$= \frac{11}{10}$$

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

$$c) \quad \frac{7}{3} \times \frac{6}{5}$$

$$\frac{7 \times 6^2}{3 \times 5}$$

$$\frac{7 \times 2}{1 \times 5}$$

$$= \frac{14}{5}$$

$$= 2\frac{4}{5}$$

$$9d) \quad 5\frac{1}{2} \times 2\frac{5}{8}$$

$$\frac{11}{2} \times \frac{21}{8}$$

$$\frac{231}{16}$$

$$14\frac{7}{16}$$

	20	1
10	200	10
1	20	1

$$\begin{array}{r}
 14 \\
 16 \overline{) 231} \\
 \underline{16} \\
 71 \\
 \underline{64} \\
 70
 \end{array}$$

$$\begin{array}{r}
 3 \\
 \times 16 \\
 \hline
 64
 \end{array}$$

$$10) \quad 3\frac{3}{5} \times 1\frac{1}{4}$$

$$\frac{18}{5} \times \frac{5}{4}$$

$$= \frac{18^9 \times 5^1}{15 \times 4^2}$$

$$= \frac{9 \times 1}{1 \times 2}$$

$$= \frac{9}{2}$$

$$= 4\frac{1}{2} \leftarrow \text{hours practicing}$$

Andrew

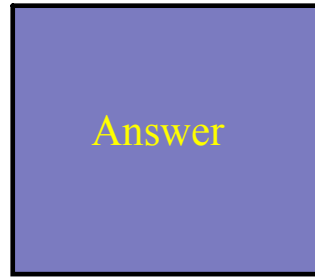
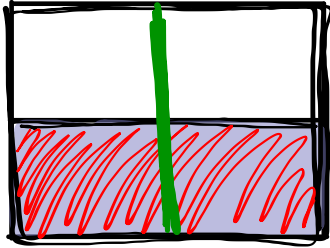
Dividing a Fraction by a Whole Number

pg. 108

1. What fraction of a whole cake would each person get if half a cake is shared equally among :

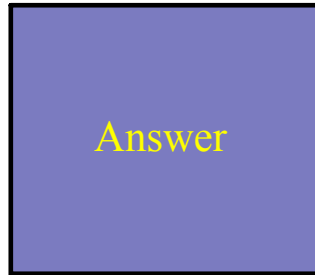
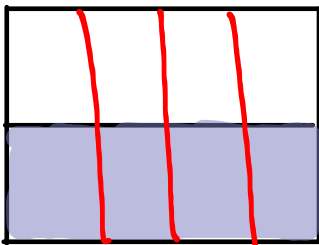
- (a) 2 students (b) 4 students (c) 8 students (d) 3 students (e) 6 students

a)



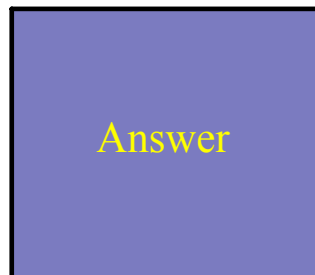
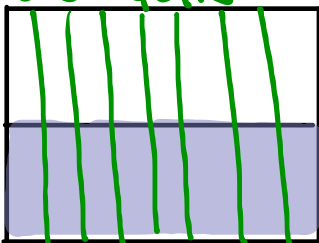
$$\frac{1}{2} \div 2 = \frac{1}{4}$$

b) 4 students



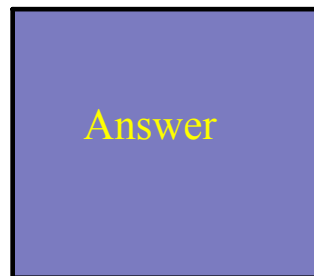
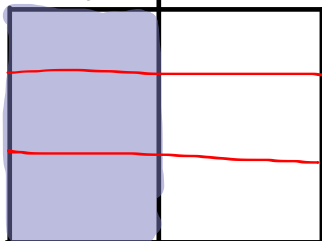
$$\frac{1}{2} \div 4 = \frac{1}{8}$$

c) 8 students



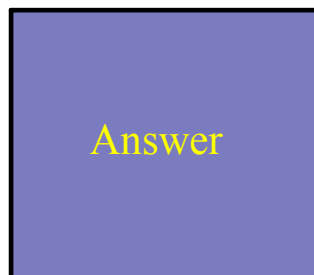
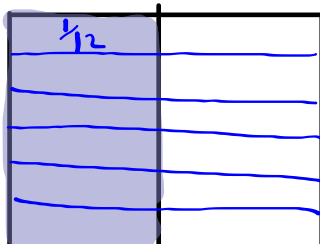
$$\frac{1}{2} \div 8 = \frac{1}{16}$$

d) 3 student



$$\frac{1}{2} \div 3 = \frac{1}{6}$$

e) 6 students



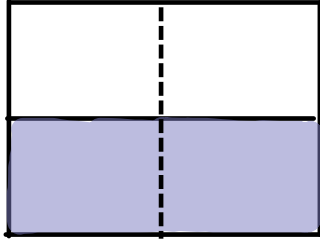
$$\frac{1}{2} \div 6 = \frac{1}{12}$$

Dividing a Fraction by a Whole Number

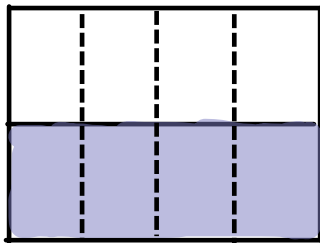
pg. 108

1. What fraction of a whole cake would each person get if half a cake is shared equally among :

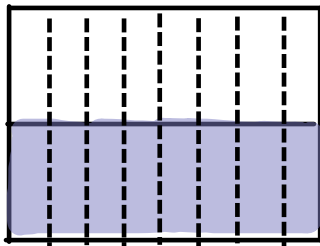
- (a) 2 students (b) 4 students (c) 8 students (d) 3 students (e) 6 students



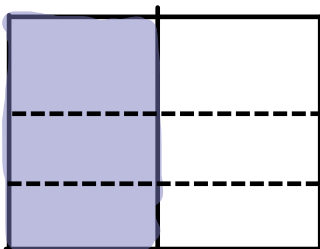
Answer



Answer



Answer



Answer



Answer

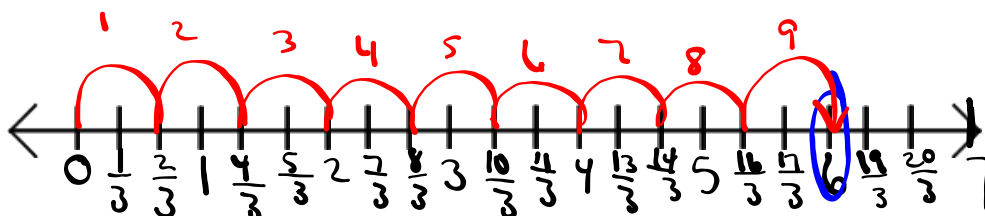
whole ÷ fraction

Using number lines to model

$$6 \div \frac{2}{3} \quad \text{step 1) Draw a number line and count by the unit fraction of } \frac{1}{3} \quad \text{up until } 6$$

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

step 3) Count the leaps



$$6 \div \frac{2}{3} = 9$$

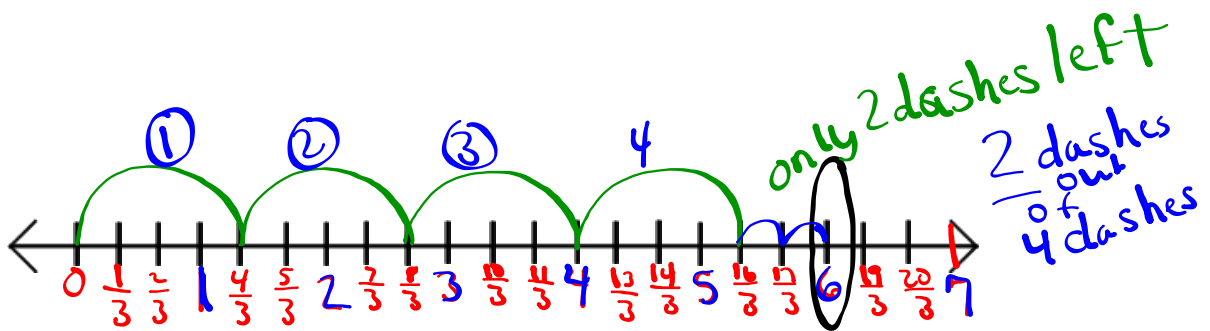
Using number lines to model

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

step 1) Draw a number line and count by the unit fraction of $\frac{1}{3}$ up until 6

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

step 3) Count the leaps



$$4 \frac{2}{4} \text{ Reduce} = 4 \frac{1}{2}$$

but $\frac{2}{3}$ is half of $\frac{4}{3}$

so only $\frac{1}{2}$ a jump