



Holy Child  
Summer Math  
Reinforcement Packet  
Entering 6th Grade

Answers

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1. Virtual Nerd

[www.virtualnerd.com](http://www.virtualnerd.com)

2. Khan Academy

[www.khanacademy.org](http://www.khanacademy.org)

3. Math A Tube

[www.mathatube.com](http://www.mathatube.com)

4. Math Is Fun

[www.mathisfun.com](http://www.mathisfun.com)

## DECIMALS

### Add and Subtract

Add  $3.25 + 12.6 + 18.93$ .

First estimate.     $3.25 \rightarrow 3$   
                           $12.6 \rightarrow 13$   
                           $+ 18.93 \rightarrow 19$   
     $\underline{\hspace{1cm}}$   
     $35$

Then follow these steps.

- ① Line up the decimal points. Write in any needed zeros.
- ② Add as you would add whole numbers. Regroup when needed.
- ③ Place the decimal point.

$$\begin{array}{r} 3.25 \\ 12.60 \\ + 18.93 \\ \hline \end{array}$$

$$\begin{array}{r} \phantom{0}11 \\ 3.25 \\ 12.60 \\ + 18.93 \\ \hline 34.78 \end{array}$$

$$\begin{array}{r} 3.25 \\ 12.60 \\ + 18.93 \\ \hline 34.78 \end{array} \leftarrow \text{Compare to your estimate}$$

To subtract decimals, follow similar steps. Work from right to left and regroup when needed. Place the decimal point to complete the subtraction.

### Multiply

Multiply  $0.3 \times 1.4$ . This drawing can help you find  $0.3 \times 1.4$ .



Each small square is 1 hundredth or 0.01.  
 Each column or row is 10 hundredths or 1 tenth or 0.1.

- ① Shade 3 rows across to represent 0.3.
- ② Shade 14 columns down to represent 1.4.
- ③ The area where the shading overlaps is 42 hundredths or 0.42.

$$0.3 \times 1.4 = 0.42$$

Compare the result from the model to the result of multiplying the factors.

$$\begin{array}{r} 0.3 \quad \leftarrow \text{1 decimal place} \\ \times 1.4 \quad \leftarrow \text{+1 decimal place} \\ \hline 12 \\ + 030 \\ \hline 0.42 \quad \leftarrow \text{2 decimal places} \end{array}$$

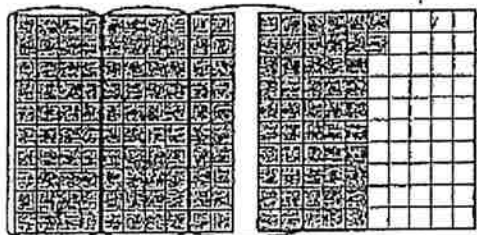
When multiplying decimals, first multiply the factors as though they are whole numbers. Then add the number of decimal places in each factor to find the number of decimal places in the product.

## DECIMALS

### Divide

Find the quotient  $1.52 \div 0.4$ .

You can use a model to estimate the quotient.



← Draw a model for 1.52.

← Since each square is 0.01, 40 squares represent 0.4.

• Circle groups of 0.4.

There are close to four groups of 0.4. The quotient is about 4.

- ① Multiply the dividend and divisor by 10 so that the divisor is a whole number.

$$\begin{array}{r} 0.4 \overline{)1.52} \\ \underline{0.4} \phantom{00} \\ 1.12 \\ \underline{0.8} \phantom{00} \\ 0.32 \\ \underline{0.32} \\ 0 \end{array}$$

- ② Divide as with whole numbers.

$$\begin{array}{r} 38 \\ 4 \overline{)152} \\ \underline{-12} \phantom{0} \\ 32 \\ \underline{-32} \\ 0 \end{array}$$

- ③ Place the decimal point in the quotient above its place in the dividend. Insert zeroes as placeholders if necessary.

$$\begin{array}{r} 3.8 \\ 4 \overline{)15.2} \\ \underline{-12} \phantom{0} \\ 32 \\ \underline{-32} \\ 0 \end{array}$$

3.8 is close to 4.

## Mixed Numbers and Improper Fractions

To write a mixed number as an *improper fraction*:

- ① Multiply the whole number by the denominator.

- ② Add this product to the numerator.

- ③ Write this sum over the denominator.

$$\begin{array}{l} \textcircled{2} \quad \textcircled{3} \\ \begin{array}{l} 3 \times 8 = 24 \\ + 5 \\ \hline 29 \end{array} \\ \textcircled{1} \end{array} = \frac{29}{8}$$

To write an improper fraction as a *mixed number*:

- ① Divide the numerator by the denominator.

$$\frac{20}{8} = 2 \text{ remainder } 4$$

- ② Write the remainder over the denominator.

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

- ③ Simplify, if possible.

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

$$\frac{20}{8} = 2\frac{1}{2}$$

## Fractions and Decimals

*Example 1:* Write 0.320 as a fraction in simplest form.

- ① Read. "320 thousandths"
- ② Write.  $\frac{320}{1,000}$
- ③ Simplify.  $\frac{320}{1,000} = \frac{320 \div 40}{1,000 \div 40} = \frac{8}{25}$   
 $0.320 = \frac{8}{25}$

*Example 2:* Write 6.95 as a mixed number in simplest form.

- ① Read. "6 and 95 hundredths"
- ② Write.  $6\frac{95}{100}$
- ③ Simplify.  $6\frac{95}{100} = 6\frac{19}{20}$   
 $6.95 = 6\frac{19}{20}$

*Example 3:* Write  $\frac{1}{5}$  and  $\frac{2}{3}$  as decimals.

Divide the numerator by the denominator. Insert zeros if needed.

$\frac{0.2}{5 \overline{)1.0}}$	$\frac{0.666 \dots}{3 \overline{)2.0000}}$	← The digits repeat because the remainder repeats.
	$\begin{array}{r} -18 \\ \hline 20 \\ -18 \\ \hline 2 \end{array}$	

$\frac{1}{5} = 0.2$        $\frac{2}{3} = 0.666 \dots = 0.\overline{6}$

0.2 is a *terminating decimal* because there is no remainder.

0.666 ... is a *repeating decimal* because the remainder repeats. Write it as  $0.\overline{6}$ .

## Fractions

### Add

Some mixed numbers can be added mentally.

Find  $5\frac{1}{4} + 2\frac{1}{8}$ .

- ① Add the whole numbers.

$$5 + 2 = 7$$

- ② Add the fractions.

$$\frac{1}{4} + \frac{1}{8} = \frac{2}{8} + \frac{1}{8} = \frac{3}{8}$$

- ③ Combine the two parts.

$$7 + \frac{3}{8} = 7\frac{3}{8}$$

$$5\frac{1}{4} + 2\frac{1}{8} = 7\frac{3}{8}$$

Or, you can follow these steps.

Find  $4\frac{4}{5} + 2\frac{9}{10}$ .

- ① Write with a common denominator.

$$4\frac{4}{5} + 2\frac{9}{10} = 4\frac{8}{10} + 2\frac{9}{10}$$

- ② Add the whole numbers.      =  $6\frac{17}{10}$   
 Add the fractions.

- ③ Rename  $6\frac{17}{10}$  as  $7\frac{7}{10}$ .      =  $7\frac{7}{10}$

$$4\frac{4}{5} + 2\frac{9}{10} = 7\frac{7}{10}$$

## Subtract

Some mixed numbers can be subtracted mentally.

Find  $5\frac{2}{3} - 2\frac{1}{6}$ .

- ① Subtract the whole numbers.

$$5 - 2 = 3$$

- ② Then, subtract the fractions.

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

- ③ Combine the two parts.

$$3 + \frac{1}{2} = 3\frac{1}{2}$$

$$5\frac{2}{3} - 2\frac{1}{6} = 3\frac{1}{2}$$

Sometimes you must rename the first fraction before subtracting.

Find  $6\frac{1}{2} - 2\frac{3}{4}$ .

Cannot subtract  
 $\frac{1}{2} - \frac{3}{4}$

- ① Write with a common denominator.

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

- ② Rename  $6\frac{2}{4}$ .  $= 5\frac{6}{4} - 2\frac{3}{4}$

- ③ Subtract the whole numbers.  $= 3\frac{3}{4}$   
Then, subtract the fractions.  
Simplify, if necessary.

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

## Multiply

Example 1: Multiply:

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

- ① Change to improper fractions.

$$\frac{15}{7} \times \frac{12}{5}$$

- ② Simplify.

$$\overset{3}{\cancel{15}} \times \frac{12}{\underset{1}{\cancel{5}}}$$

- ③ Multiply.

$$\frac{36 \leftarrow 3 \times 12}{7 \leftarrow 7 \times 1}$$

- ④ Simplify.

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

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

Example 2: Multiply:  $\frac{2}{3} \times 5\frac{1}{4}$

$$\frac{2}{3} \times \frac{21}{4}$$

$$\frac{\overset{1}{\cancel{2}}}{1} \times \frac{\overset{7}{\cancel{21}}}{\underset{2}{\cancel{4}}}$$

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

$$3\frac{1}{2}$$

$$\frac{2}{3} \times 5\frac{1}{4} = 3\frac{1}{2}$$

## Divide

Example 1: Estimate  $36\frac{1}{3} \div 5\frac{7}{8}$ .

$$36\frac{1}{3} \div 5\frac{7}{8}$$

Round mixed numbers to nearest whole number.

$$\downarrow$$

$$\downarrow$$

$$36 \div 6 = 6$$

Find the quotient of the rounded values.

Example 2: Find  $5\frac{1}{3} \div 2\frac{2}{5}$ .

- ① Write each mixed number as an improper fraction.

$$5\frac{1}{3} \div 2\frac{2}{5} = \frac{16}{3} \div \frac{12}{5}$$

- ② The reciprocal of  $\frac{12}{5}$  is  $\frac{5}{12}$ .

$$\frac{12}{5} \times \frac{5}{12}$$

- ③ Multiply  $\frac{16}{3}$  by the reciprocal.

$$\frac{16}{3} \div \frac{12}{5} = \frac{16}{3} \times \frac{5}{12} = \frac{4 \times 5}{3 \times 3} = \frac{20}{9} = 2\frac{2}{9}$$

$$5\frac{1}{3} \div 2\frac{2}{5} = 2\frac{2}{9}$$

# DECIMAL PRACTICE

Change each fraction or mixed numeral to a decimal.

1.  $\frac{175}{1000} = \overset{a}{.175}$  ;  $9\frac{4}{10} = \overset{b}{9.4}$  ;  $3\frac{8}{100} = \overset{c}{3.08}$

Change each of the following to a decimal as indicated.

2. Change  $\frac{9}{10}$  to hundredths.      Change  $3\frac{1}{5}$  to tenths.      Change  $5\frac{75}{250}$  to thousandths.

$\frac{9}{10} = \frac{90}{100} = .90$        $3\frac{1}{5} = 3\frac{2}{10} = 3.2$        $5\frac{75}{250} = 5\frac{300}{1000} = 5.30$

Change each decimal to a fraction or mixed numeral in simplest form.

3.  $\overset{a}{0.075} = \frac{75}{1000} = \frac{3}{40}$        $\overset{b}{8.6} = 8\frac{6}{10} = 8\frac{3}{5}$        $\overset{c}{16.49} = 16\frac{49}{100}$

Add or subtract.

<p>4. <math>\overset{a}{\begin{array}{r} 0.9 \\ +0.4 \\ \hline 1.3 \end{array}}</math></p>	<p><math>\overset{b}{\begin{array}{r} 0.52 \\ +0.43 \\ \hline .95 \end{array}}</math></p>	<p><math>\overset{c}{\begin{array}{r} 6.534 \\ +7.827 \\ \hline 14.361 \end{array}}</math></p>	<p><math>\overset{d}{\begin{array}{r} 9.308 \\ 21.295 \\ +0.043 \\ \hline 30.646 \end{array}}</math></p>
<p>5. <math>\begin{array}{r} 3.3 \\ -1.6 \\ \hline 1.7 \end{array}</math></p>	<p><math>\begin{array}{r} 8.24 \\ -3.73 \\ \hline 4.51 \end{array}</math></p>	<p><math>\begin{array}{r} 0.442 \\ -0.375 \\ \hline 0.067 \end{array}</math></p>	<p><math>\begin{array}{r} 18.042 \\ -12.345 \\ \hline 5.697 \end{array}</math></p>
<p>6. <math>\begin{array}{r} 0.42 \\ +0.9 \\ \hline 1.32 \end{array}</math></p>	<p><math>\begin{array}{r} 0.35 \\ +0.065 \\ \hline 0.415 \end{array}</math></p>	<p><math>\begin{array}{r} 3.6 \\ +14.673 \\ \hline 18.273 \end{array}</math></p>	<p><math>\begin{array}{r} 9.2 \\ 4.375 \\ +4.378 \\ \hline 57.355 \end{array}</math></p>
<p>7. <math>\begin{array}{r} 0.546 \\ -0.38 \\ \hline 0.166 \end{array}</math></p>	<p><math>\begin{array}{r} 3.8 \\ -1.21 \\ \hline 2.59 \end{array}</math></p>	<p><math>\begin{array}{r} 7.22 \\ -4.436 \\ \hline 2.784 \end{array}</math></p>	<p><math>\begin{array}{r} 8.4 \\ -3.575 \\ \hline 4.825 \end{array}</math></p>



# DECIMAL PRACTICE

Multiply.

1. <sup>a</sup>  

$$\begin{array}{r} 0.6 \\ \times 0.8 \\ \hline 0.48 \end{array}$$

<sup>b</sup>  

$$\begin{array}{r} 0.18 \\ \times 7 \\ \hline 1.26 \end{array}$$

<sup>c</sup>  

$$\begin{array}{r} 0.308 \\ \times 0.9 \\ \hline 0.2772 \end{array}$$

<sup>d</sup>  

$$\begin{array}{r} 0.42 \\ \times 5.3 \\ \hline 2.226 \end{array}$$

<sup>e</sup>  

$$\begin{array}{r} 1.73 \\ \times 2.8 \\ \hline 4.844 \end{array}$$

2. <sup>9</sup>  

$$\begin{array}{r} 0.6 \\ \times 0.6 \\ \hline 0.36 \end{array}$$

$$\begin{array}{r} 2.4 \\ \times 0.3 \\ \hline 0.72 \end{array}$$

$$\begin{array}{r} 42.6 \\ \times 0.7 \\ \hline 29.82 \end{array}$$

$$\begin{array}{r} 0.64 \\ \times 0.75 \\ \hline 0.48 \end{array}$$

$$\begin{array}{r} 146 \\ \times 0.52 \\ \hline 75.92 \end{array}$$

3. 
$$\begin{array}{r} 0.05 \\ \times 0.3 \\ \hline 0.015 \end{array}$$

$$\begin{array}{r} 0.64 \\ \times 0.9 \\ \hline 0.576 \end{array}$$

$$\begin{array}{r} 3.15 \\ \times 0.9 \\ \hline 2.835 \end{array}$$

$$\begin{array}{r} 5.8 \\ \times 6.1 \\ \hline 35.38 \end{array}$$

$$\begin{array}{r} 35.6 \\ \times 0.42 \\ \hline 14.952 \end{array}$$

4. 
$$\begin{array}{r} 4 \\ \times 0.02 \\ \hline 0.08 \end{array}$$

$$\begin{array}{r} 5.3 \\ \times 0.04 \\ \hline 0.212 \end{array}$$

$$\begin{array}{r} 6.02 \\ \times 0.04 \\ \hline 0.2408 \end{array}$$

$$\begin{array}{r} 7.81 \\ \times 15.2 \\ \hline 118.712 \end{array}$$

$$\begin{array}{r} 0.1628 \\ \times 100 \\ \hline 16.28 \end{array}$$

5. 
$$\begin{array}{r} 0.9 \\ \times 0.006 \\ \hline 0.0054 \end{array}$$

$$\begin{array}{r} 0.67 \\ \times 0.02 \\ \hline 0.0134 \end{array}$$

$$\begin{array}{r} 532 \\ \times 0.07 \\ \hline 37.24 \end{array}$$

$$\begin{array}{r} 3.86 \\ \times 4.04 \\ \hline 15.5944 \end{array}$$

$$\begin{array}{r} 418 \\ \times 0.632 \\ \hline 264.176 \end{array}$$

# DECIMAL PRACTICE

Divide.

a

1. 
$$\begin{array}{r} 0.023 \\ 8 \overline{) 0.184} \end{array}$$

b

$$\begin{array}{r} 0.14 \\ 3 \overline{) 0.42} \end{array}$$

c

$$\begin{array}{r} 3.7 \\ 4 \overline{) 14.8} \end{array}$$

d

$$\begin{array}{r} 0.0051 \\ 6 \overline{) 0.0306} \end{array}$$

2. 
$$\begin{array}{r} 1,100 \\ 0.05 \overline{) 55} \end{array}$$

$$\begin{array}{r} 12,000 \\ 0.003 \overline{) 36} \end{array}$$

$$\begin{array}{r} 60 \\ 0.7 \overline{) 42} \end{array}$$

$$\begin{array}{r} 2,100 \\ 0.04 \overline{) 84} \end{array}$$

3. 
$$\begin{array}{r} 23 \\ 0.4 \overline{) 9.2} \end{array}$$

$$\begin{array}{r} 1.4 \\ 0.6 \overline{) 0.84} \end{array}$$

$$\begin{array}{r} 2.4 \\ 0.03 \overline{) 0.072} \end{array}$$

$$\begin{array}{r} 7 \\ 0.004 \overline{) 0.028} \end{array}$$

4. 
$$\begin{array}{r} 900 \\ 0.006 \overline{) 5.4} \end{array}$$

$$\begin{array}{r} 70 \\ 0.07 \overline{) 4.9} \end{array}$$

$$\begin{array}{r} 90 \\ 0.007 \overline{) 0.63} \end{array}$$

$$\begin{array}{r} 10,300 \\ 0.004 \overline{) 41.2} \end{array}$$

5. 
$$\begin{array}{r} 25 \\ 0.36 \overline{) 9} \end{array}$$

$$\begin{array}{r} 1.4 \\ 3.8 \overline{) 5.32} \end{array}$$

$$\begin{array}{r} 2.6 \\ 0.42 \overline{) 1.092} \end{array}$$

$$\begin{array}{r} 0.073 \\ 4.5 \overline{) 0.3285} \end{array}$$

Write each answer in simplest form.

- |    | a  | b  | c   | d  |
|----|--|--|---|--|
| 1. | $\begin{array}{r} \frac{3}{8} \\ + \frac{4}{8} \\ \hline 1 \frac{7}{8} \end{array}$      | $\begin{array}{r} \frac{7}{10} \\ - \frac{2}{10} \\ \hline \frac{5}{10} = \frac{1}{2} \end{array}$ | $\begin{array}{r} \frac{5}{12} \\ + \frac{9}{12} \\ \hline 1 \frac{14}{12} = 1 \frac{1}{6} \end{array}$       | $\begin{array}{r} \frac{8}{9} \\ - \frac{6}{9} \\ \hline \frac{2}{9} \end{array}$                          |
| 2. | $\begin{array}{r} \frac{5}{6} \\ + \frac{2}{9} \\ \hline 1 \frac{17}{18} \end{array}$    | $\begin{array}{r} \frac{7}{8} \\ + \frac{1}{3} \\ \hline 1 \frac{5}{24} \end{array}$               | $\begin{array}{r} \frac{9}{10} \\ - \frac{2}{5} \\ \hline \frac{1}{2} \end{array}$                            | $\begin{array}{r} \frac{3}{4} \\ - \frac{2}{3} \\ \hline \frac{1}{12} \end{array}$                         |
| 3. | $\begin{array}{r} 6 \\ - \frac{1}{9} \\ \hline 5 \frac{8}{9} \end{array}$                | $\begin{array}{r} 3 \\ - \frac{4}{7} \\ \hline 2 \frac{3}{7} \end{array}$                          | $\begin{array}{r} \frac{3}{8} \\ + \frac{5}{6} \\ \hline 1 \frac{5}{24} \end{array}$                          | $\begin{array}{r} 2 \\ + \frac{3}{4} \\ \hline 2 \frac{3}{4} \end{array}$                                  |
| 4. | $\begin{array}{r} 4 \frac{5}{6} \\ + \frac{3}{5} \\ \hline 5 \frac{13}{30} \end{array}$  | $\begin{array}{r} \frac{3}{8} \\ + 2 \frac{9}{10} \\ \hline 3 \frac{11}{40} \end{array}$           | $\begin{array}{r} 6 \frac{3}{8} \\ - \frac{5}{6} \\ \hline 5 \frac{13}{24} \end{array}$                       | $\begin{array}{r} 7 \frac{1}{4} \\ - \frac{7}{12} \\ \hline 6 \frac{2}{3} \end{array}$                     |
| 5. | $\begin{array}{r} 6 \frac{3}{5} \\ + 2 \frac{3}{4} \\ \hline 9 \frac{7}{20} \end{array}$ | $\begin{array}{r} 4 \frac{5}{8} \\ - 1 \frac{1}{2} \\ \hline 3 \frac{1}{8} \end{array}$            | $\begin{array}{r} 9 \frac{1}{8} \\ + 2 \frac{4}{6} \\ + \frac{7}{10} \\ \hline 12 \frac{59}{120} \end{array}$ | $\begin{array}{r} 5 \frac{3}{4} \\ + \frac{1}{6} \\ + 5 \frac{3}{8} \\ \hline 11 \frac{7}{24} \end{array}$ |

## CHAPTER 3 TEST

Write each answer in simplest form.

$$1. \quad a \quad \frac{1}{2} \times \frac{5}{6} = \frac{5}{12}$$

$$b \quad \frac{7}{8} \times \frac{5}{6} = \frac{35}{48}$$

$$c \quad \frac{2}{3} \times \frac{5}{7} = \frac{10}{21}$$

$$d \quad \frac{3}{8} \times \frac{3}{8} = \frac{9}{64}$$

3

$$2. \quad \frac{5}{3} \times \frac{4}{7} = \frac{20}{21}$$

$$\frac{7}{5} \times \frac{8}{9} = \frac{28}{45}$$

$$\frac{3}{10} \times \frac{5}{6} = \frac{3}{4}$$

$$\frac{1}{2} \times \frac{4}{5} = \frac{1}{2}$$

$$3. \quad 2 \times \frac{3}{5} = \frac{6}{5} = 1\frac{1}{5}$$

$$6 \times \frac{5}{7} = \frac{30}{7} = 4\frac{2}{7}$$

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

$$\frac{5}{3} \times \frac{8}{1} = \frac{20}{3} = 6\frac{2}{3}$$

$$4. \quad 4 \times 3\frac{1}{3}$$

$$\frac{4}{1} \times \frac{10}{3} = \frac{40}{3} = 13\frac{1}{3}$$

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

$$\frac{8}{5} = 1\frac{3}{5}$$

$$10 \times \frac{4}{5}$$

$$\frac{10}{1} \times \frac{4}{5} = 8$$

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

$$5. \quad 3\frac{1}{3} \times 1\frac{1}{7}$$

$$\frac{10}{3} \times \frac{8}{7} = \frac{80}{21}$$

$$3\frac{17}{21}$$

$$1\frac{4}{5} \times 3\frac{1}{2}$$

$$\frac{9}{5} \times \frac{7}{2} = \frac{63}{10}$$

$$6\frac{3}{10}$$

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

$$\frac{8}{3} \times \frac{11}{10} = \frac{44}{15} = 2\frac{14}{15}$$

$$2\frac{4}{5} \times 4\frac{1}{6}$$

$$\frac{14}{5} \times \frac{25}{6} = \frac{35}{3} = 11\frac{2}{3}$$

# FRACTION PRACTICE

Write each answer in simplest form.

- |   |   |  |  |
|---|---|--|--|
| <p>a</p> <p>1. <math>5 \div \frac{1}{3}</math></p> $5 \times \frac{3}{1} = \frac{15}{1} = 15$                     | <p>b</p> <p><math>8 \div \frac{3}{4}</math></p> $8 \times \frac{4}{3} = \frac{32}{3} = 10\frac{2}{3}$             | <p>c</p> <p><math>4 \div \frac{2}{3}</math></p> $4 \times \frac{3}{2} = 6$                                     | <p>d</p> <p><math>10 \div \frac{6}{7}</math></p> $10 \times \frac{7}{6} = \frac{35}{3} = 11\frac{2}{3}$            |
| <p>2. <math>\frac{1}{2} \div 3</math></p> $\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$                          | <p><math>\frac{4}{7} \div 3</math></p> $\frac{4}{7} \times \frac{1}{3} = \frac{4}{21}$                            | <p><math>\frac{5}{9} \div 5</math></p> $\frac{5}{9} \times \frac{1}{5} = \frac{1}{9}$                          | <p><math>\frac{6}{7} \div 8</math></p> $\frac{6}{7} \times \frac{1}{8} = \frac{3}{28}$                             |
| <p>3. <math>\frac{1}{9} \div \frac{1}{4}</math></p> $\frac{1}{9} \times \frac{4}{1} = \frac{4}{9}$                | <p><math>\frac{1}{10} \div \frac{1}{5}</math></p> $\frac{1}{10} \times \frac{5}{1} = \frac{1}{2}$                 | <p><math>\frac{1}{5} \div \frac{1}{10}</math></p> $\frac{1}{5} \times \frac{10}{1} = \frac{2}{1} = 2$          | <p><math>\frac{1}{3} \div \frac{1}{4}</math></p> $\frac{1}{3} \times \frac{4}{1} = \frac{4}{3} = 1\frac{1}{3}$     |
| <p>4. <math>\frac{1}{6} \div \frac{1}{9}</math></p> $\frac{1}{6} \times \frac{9}{1} = \frac{3}{2} = 1\frac{1}{2}$ | <p><math>\frac{4}{5} \div \frac{3}{4}</math></p> $\frac{4}{5} \times \frac{4}{3} = \frac{16}{15} = 1\frac{1}{15}$ | <p><math>\frac{7}{9} \div \frac{2}{3}</math></p> $\frac{7}{9} \times \frac{3}{2} = \frac{7}{6} = 1\frac{1}{6}$ | <p><math>\frac{5}{8} \div \frac{5}{6}</math></p> $\frac{5}{8} \times \frac{6}{5} = \frac{3}{4}$                    |
| <p>5. <math>2\frac{1}{3} \div 5</math></p> $\frac{7}{3} \times \frac{1}{5} = \frac{7}{15}$                        | <p><math>6 \div 1\frac{2}{3}</math></p> $\frac{6}{1} \times \frac{3}{5} = \frac{18}{5} = 3\frac{3}{5}$            | <p><math>\frac{1}{3} \div 1\frac{1}{2}</math></p> $\frac{1}{3} \times \frac{2}{3} = \frac{2}{9}$               | <p><math>3\frac{1}{3} \div 1\frac{1}{2}</math></p> $\frac{10}{3} \times \frac{2}{3} = \frac{20}{9} = 2\frac{2}{9}$ |

1)  $\frac{2}{10} = .2$

11)  $0.25 = \frac{1}{4}$

2)  $\frac{6}{10} = .6$

12)  $0.667 = \frac{2}{3}$

3)  $\frac{2}{3} = .\overline{6}$

13)  $0.25 = \frac{1}{4}$

4)  $\frac{3}{4} = .75$

14)  $0.5 = \frac{1}{2}$

5)  $\frac{4}{5} = .8$

15)  $0.333 = \frac{1}{3}$

6)  $\frac{2}{8} = .25$

16)  $0.2 = \frac{1}{5}$

7)  $\frac{3}{4} = .75$

17)  $0.875 = \frac{7}{8}$

8)  $\frac{6}{10} = .6$

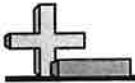
18)  $0.5 = \frac{1}{2}$

9)  $\frac{1}{5} = .2$

19)  $0.8 = \frac{4}{5}$

10)  $\frac{2}{3} = .\overline{6}$

20)  $0.6 = \frac{3}{5}$

**Solve each problem.**

- 1) The owner of a malt shop spent \$1 buying 7 boxes of cups with each box containing 712 cups. If he expected the cups to last 8 months, how many cups does he plan to use each month?  $712 \cdot 7$   
 $4,984 \div 8$
- 2) A restaurant owner bought 9 boxes of disposable cups for \$66, with each box containing 3,760 cups. If he wanted to divvy up the cups among his 2 restaurants, with each restaurant getting the same number of cups, how many cups should each store get?  $3,760 \cdot 9$   
 $33,840 \div 2$
- 3) A king size candy bars costs \$2 with each candy bar having 1,242 calories. If you bought 3 candy bars and took 9 days eating them (eating the same amount each day) how many calories would you consume a day?  $1,242 \cdot 3$   
 $3,726 \div 9$
- 4) Will and Maria were comparing their Halloween candy. Will received 4 times as much candy as Maria received. Will then split his candy evenly into 3 piles to eat later. If Nancy received 93 ounces of candy, how many ounces of candy would be in each of Will's piles?  $93 \cdot 4$   
 $372 \div 3$
- 5) A developer was buying land. He bought 4 acres at \$1,484 per acre. He then split the land he purchased into 7 lots. How much should he sell each lot for just to break even?  $1,484 \cdot 4$   
 $5,936 \div 7$
- 6) An industrial machine made 2,004 cans of diet sodas and 7 times as many regular sodas over the course of 45 minutes. Both types of soda were then placed into 4 shipping boxes with each shipping box containing the same number of sodas. How many sodas were in each shipping box.  $2,004 \cdot 7$   
 $14,028 \div 4$
- 7) At Amy's bakery over the course of a year she sold 56 birthday cakes for \$56 a cake. At the end of the year she determined that for each cake she sold she had spent  $\frac{1}{7}$  of the sale price on ingredients. How much money did she spend on ingredients for cakes?  $56 \cdot 56$   
 $3,136 \div 7$
- 8) Over the course of 16 weeks Haley collected 18 pounds of cans to recycle and George collected 2 times as much as Haley. George then put his collection into 9 bags to take to the recycling center. How many pounds of cans did George put into each bag?  $18 \cdot 2$   
 $36 \div 9$

**Answers**

1. 623
2. 16,920
3. 414
4. 124
5. 848
6. 3,507
7. 448
8. 4

# MULTIPLICATION TABLES

15

MathATube.com2-12 Times Tables

$2 \times 1 = 2$   
 $2 \times 2 = 4$   
 $2 \times 3 = 6$   
 $2 \times 4 = 8$   
 $2 \times 5 = 10$   
 $2 \times 6 = 12$   
 $2 \times 7 = 14$   
 $2 \times 8 = 16$   
 $2 \times 9 = 18$   
 $2 \times 10 = 20$   
 $2 \times 11 = 22$   
 $2 \times 12 = 24$

$3 \times 1 = 3$   
 $3 \times 2 = 6$   
 $3 \times 3 = 9$   
 $3 \times 4 = 12$   
 $3 \times 5 = 15$   
 $3 \times 6 = 18$   
 $3 \times 7 = 21$   
 $3 \times 8 = 24$   
 $3 \times 9 = 27$   
 $3 \times 10 = 30$   
 $3 \times 11 = 33$   
 $3 \times 12 = 36$

$4 \times 1 = 4$   
 $4 \times 2 = 8$   
 $4 \times 3 = 12$   
 $4 \times 4 = 16$   
 $4 \times 5 = 20$   
 $4 \times 6 = 24$   
 $4 \times 7 = 28$   
 $4 \times 8 = 32$   
 $4 \times 9 = 36$   
 $4 \times 10 = 40$   
 $4 \times 11 = 44$   
 $4 \times 12 = 48$

$5 \times 1 = 5$   
 $5 \times 2 = 10$   
 $5 \times 3 = 15$   
 $5 \times 4 = 20$   
 $5 \times 5 = 25$   
 $5 \times 6 = 30$   
 $5 \times 7 = 35$   
 $5 \times 8 = 40$   
 $5 \times 9 = 45$   
 $5 \times 10 = 50$   
 $5 \times 11 = 55$   
 $5 \times 12 = 60$

$6 \times 1 = 6$   
 $6 \times 2 = 12$   
 $6 \times 3 = 18$   
 $6 \times 4 = 24$   
 $6 \times 5 = 30$   
 $6 \times 6 = 36$   
 $6 \times 7 = 42$   
 $6 \times 8 = 48$   
 $6 \times 9 = 54$   
 $6 \times 10 = 60$   
 $6 \times 11 = 66$   
 $6 \times 12 = 72$

$7 \times 1 = 7$   
 $7 \times 2 = 14$   
 $7 \times 3 = 21$   
 $7 \times 4 = 28$   
 $7 \times 5 = 35$   
 $7 \times 6 = 42$   
 $7 \times 7 = 49$   
 $7 \times 8 = 56$   
 $7 \times 9 = 63$   
 $7 \times 10 = 70$   
 $7 \times 11 = 77$   
 $7 \times 12 = 84$

$8 \times 1 = 8$   
 $8 \times 2 = 16$   
 $8 \times 3 = 24$   
 $8 \times 4 = 32$   
 $8 \times 5 = 40$   
 $8 \times 6 = 48$   
 $8 \times 7 = 56$   
 $8 \times 8 = 64$   
 $8 \times 9 = 72$   
 $8 \times 10 = 80$   
 $8 \times 11 = 88$   
 $8 \times 12 = 96$

$9 \times 1 = 9$   
 $9 \times 2 = 18$   
 $9 \times 3 = 27$   
 $9 \times 4 = 36$   
 $9 \times 5 = 45$   
 $9 \times 6 = 54$   
 $9 \times 7 = 63$   
 $9 \times 8 = 72$   
 $9 \times 9 = 81$   
 $9 \times 10 = 90$   
 $9 \times 11 = 99$   
 $9 \times 12 = 108$

$10 \times 1 = 10$   
 $10 \times 2 = 20$   
 $10 \times 3 = 30$   
 $10 \times 4 = 40$   
 $10 \times 5 = 50$

$11 \times 1 = 11$   
 $11 \times 2 = 22$   
 $11 \times 3 = 33$   
 $11 \times 4 = 44$   
 $11 \times 5 = 55$

$12 \times 1 = 12$   
 $12 \times 2 = 24$   
 $12 \times 3 = 36$   
 $12 \times 4 = 48$   
 $12 \times 5 = 60$

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dedicated to helping*