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## NCTM Standards

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## NCTM Standards

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## NCTM Standards

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### NCTM Standards

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# Order of Operation

When there is more than one operation in a problem, there is an order that must be followed.

**Step 1** Do what is grouped inside the parentheses ( $\phantom{}$ ).

**Step 2** Do all  $\times$  and  $\div$  from left to right.

**Step 3** Do all  $+$  and  $-$  from left to right.



$$\begin{array}{r}
 8 \times 2 - (5 + 6) + 1 = \\
 \phantom{8 \times 2} - 11 + 1 = \\
 16 - 11 + 1 = \\
 \phantom{16} - 5 + 1 = 6
 \end{array}$$

$$\begin{array}{r}
 18 - 2 + 7 = \\
 16 + 7 = 23
 \end{array}$$

**Step 3**

$$\begin{array}{r}
 5 \times 4 - 4 \div 2 = \\
 20 - 2 = 18
 \end{array}$$

**Step 2**

**Step 3**

$$\begin{array}{r}
 10 - 4 \times 2 + 2 = \\
 10 - 8 + 2 = \\
 2 + 2 = 4
 \end{array}$$

**Step 2**

**Step 3**

**Step 3**

$$\begin{array}{r}
 20 - (3 + 2) \times 2 = \\
 20 - 5 \times 2 = \\
 20 - 10 = 10
 \end{array}$$

**Step 1**

**Step 2**

**Step 3**

Solve and answer the riddle below.

d  $180 - 43 \times 2 = \underline{\hspace{2cm}}$

a  $9 \times 12 + 10 \times 8 = \underline{\hspace{2cm}}$

w  $100 - (14 + 62) = \underline{\hspace{2cm}}$

s  $89 - 67 + 48 = \underline{\hspace{2cm}}$

h  $(40 - 19) \times 3 = \underline{\hspace{2cm}}$

e  $239 - (142 + 68) = \underline{\hspace{2cm}}$

o  $252 \div 6 \times 2 = \underline{\hspace{2cm}}$

t  $1,134 \div (28 - 19) = \underline{\hspace{2cm}}$

u  $8 \times 9 - 7 \times 7 = \underline{\hspace{2cm}}$

m  $(200 - 123) \div 7 = \underline{\hspace{2cm}}$

r  $18 - 9 \times 2 + 3 = \underline{\hspace{2cm}}$

f  $(85 + 19) - 6 \times 14 = \underline{\hspace{2cm}}$

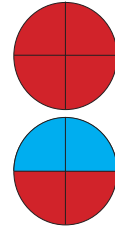
Why did the mother skunk take her baby daughter to the doctor?

$\overline{70}$   $\overline{63}$   $\overline{29}$        $\overline{24}$   $\overline{188}$   $\overline{70}$        $\overline{84}$   $\overline{23}$   $\overline{126}$   
 $\overline{84}$   $\overline{20}$        $\overline{84}$   $\overline{94}$   $\overline{84}$   $\overline{3}$



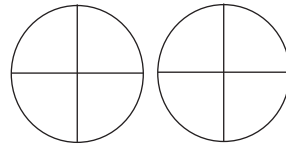
An **improper fraction** can be changed to a **mixed number** by dividing the numerator by the denominator.

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

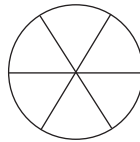


Add the like fractions, then color the figures. Where necessary, change the improper fraction to a mixed number.

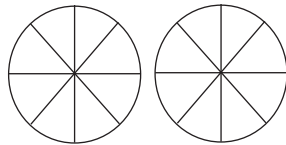
1  $\frac{3}{4} + \frac{2}{4} = \frac{\square}{\square} = \square \frac{\square}{\square}$



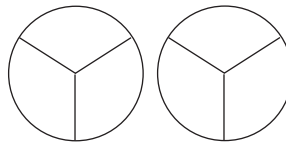
2  $\frac{2}{6} + \frac{3}{6} = \frac{\square}{\square}$



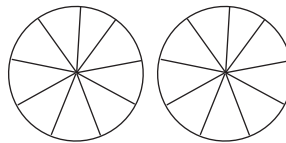
3  $\frac{7}{8} + \frac{2}{8} = \frac{\square}{\square} = \square \frac{\square}{\square}$



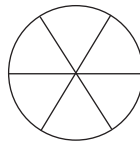
4  $\frac{2}{3} + \frac{2}{3} = \frac{\square}{\square} = \square \frac{\square}{\square}$



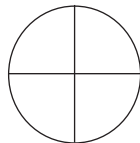
5  $\frac{7}{9} + \frac{4}{9} = \frac{\square}{\square} = \square \frac{\square}{\square}$



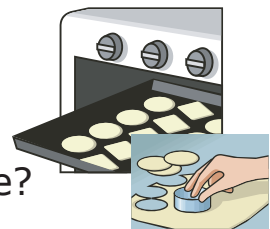
6  $\frac{1}{6} + \frac{5}{6} = \frac{\square}{\square} = \square$



7  $\frac{1}{4} + \frac{1}{4} = \frac{\square}{\square} = \frac{\square}{\square}$



8 Jo uses  $\frac{1}{2}$  cup of milk to make a cookie recipe. If Jo makes 4 recipes of cookies, how much milk will she use?



Make an equation and solve.

$$\frac{\square}{\square} + \frac{\square}{\square} + \frac{\square}{\square} + \frac{\square}{\square} = \underline{\hspace{2cm}}$$

$$\$2.25 \div 3 = \$.75$$

$$4.7 \text{ seconds} \div 5 = .94 \text{ seconds}$$

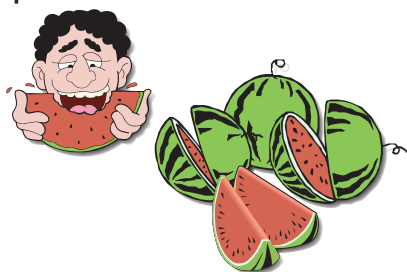
$\begin{array}{r} \underline{.75} \\ 3 \overline{) \$2.25} \\ \underline{-21} \phantom{0} \\ 15 \\ \underline{-15} \phantom{0} \\ 0 \end{array}$	<p>← quotient →</p> <p>← dividend →</p>	$\begin{array}{r} \underline{.94} \text{ seconds} \\ 5 \overline{) 4.70} \\ \underline{-45} \phantom{0} \\ 20 \\ \underline{-20} \\ 0 \end{array}$
--	---	--

When dividing with whole numbers, the decimal point in the quotient is placed directly above the decimal point in the dividend.

Add, then divide to find the mean (average).

- At three different stores, the price per pound for a watermelon was \$1, \$1.44, and \$1.25. What was the average price per pound for a watermelon?

\_\_\_\_\_

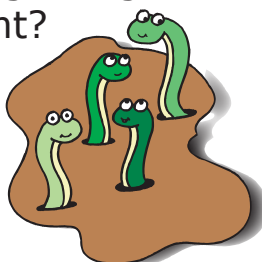


- At the race, the top two runners in the 100 meter dash had times of 12.4 seconds and 11 seconds. What was the average time for the two runners?

\_\_\_\_\_

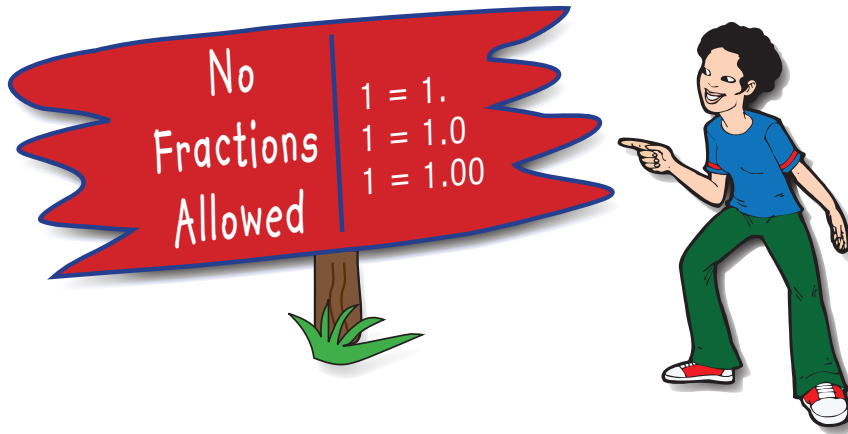
- Geoff caught worms with lengths of 9 cm, 8.2 cm, 6.3 cm, and 9.7 cm. What was the average length of the worms he caught?

\_\_\_\_\_





# WHOLE NUMBER



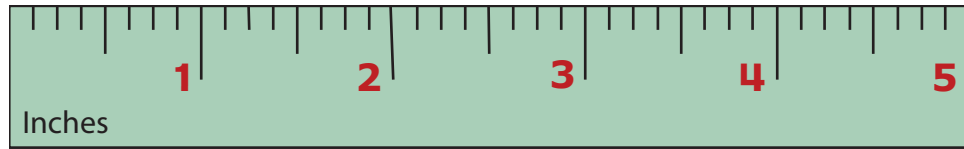
Sum the following five problems. All answers are whole numbers.

Whole Number

- |   |                               |       |
|---|-------------------------------|-------|
| 1 | $42.4 + .05 + 2.41 + .14 =$   | _____ |
| 2 | $103 + 41.9 + .09 + 1.01 =$   | _____ |
| 3 | $4.5 + 25 + 5 + 5.5 =$        | _____ |
| 4 | $1.15 + .43 + 2.17 + .25 =$   | _____ |
| 5 | $30.06 + 2.4 + 1.24 + 10.3 =$ | _____ |

Place the following decimal numbers in order from least to greatest.

- |   |              |       |       |       |
|---|--------------|-------|-------|-------|
| 6 | .3, 30, .33  | _____ | _____ | _____ |
| 7 | 1.2, 12, .12 | _____ | _____ | _____ |
| 8 | .45, .4, 1   | _____ | _____ | _____ |



Divide 5 inches into 4 equal parts.


$$4 \overline{)5} \quad 1 \frac{1}{4}$$

$$\underline{-4}$$

$$1$$

1. Find the average height for four children in the Long family if their heights are 60, 53, 62, and 48 inches.


\_\_\_\_\_

2.  How much would every person get if \$132 was divided evenly among 8 people?

\_\_\_\_\_

3. What was the average price of a chair if the chair was listed at \$287, \$349, and \$324 at three different department stores?

\_\_\_\_\_

4.  A land plot had an area of 635 square miles. If the land was divided evenly among 10 relatives, how much area would each person receive?

\_\_\_\_\_