## Math 3 Homework 17

Use distributive property to do multiplication (substitute one of the factors by sum or difference the way most convenient for you)
$17 \times 7=$ $\qquad$
$65 \times 5=$ $\qquad$
$108 \times 8=$ $\qquad$
$14 \times 25=$ $\qquad$
$110 \times 4=$ $\qquad$
$19 \times 5=$ $\qquad$

Solve the following equations and check your answers:

$$
800+\boldsymbol{x} \div 6=786 \quad(4 \times \boldsymbol{x}) \div 10=280 \quad \boldsymbol{b} \times 18+312=402
$$



Use the commutative and associative property and present the answers in the most simplified form:

$$
\begin{array}{ll}
107+(23+505)= & 229+(104-19)= \\
(607+432)-407= & (33 \times 10) \times 3=
\end{array}
$$

Write the correct sign <, > or = to make these statements correct:
$(8+5)-7 \ldots(8+7)-5$
$2 \times(3+4) \ldots(2 \times 3)+4$
$(10 \times 5) \div 2 \ldots 10 \times(5 \div 2)$

5 Put the parenthesis to the following equalities to make them correct.
a) $6+2 \times 5=40$
b) $3 \times 4+2=18$
c) $3+4 \times 2+4=42$
d) $4+3+2 \times 2=18$

Report the time you spent: $\qquad$
6. Write the expression for the perimeter of each shape in the simplified form.

7.

Write down an expression for each problem:
a) $x$ brown ducks and $y$ gray ducks are digging the worms. All ducks were divided into several teams with 5 ducks in each team. How many different teams can be organized?
b) One squirrel has $a$ acorns. A second squirrel has twice as many acorns as the first one. They decided to hide their acorns in two different places. How many acorns are going to be hide in each place?
c) Caterpillar had traveled $b$ meters, and this is $c$ meters less than Snail. How many meters did they travel together? $\qquad$

There are 95 stamps in two albums. After 35 stamps were removed from one of the albums, each album had an equal number of stamps. How many stamps were in each album at the beginning?
$\qquad$
$\qquad$
Answer: $\qquad$ stamps were in each album at the beginning.
9. The area of the rectangle is $36 \mathrm{~m}^{2}$. How long can be the sides of such a rectangle? Fill in the possible values of $\boldsymbol{a}$ and $\boldsymbol{b}$ (sides of the rectangle) and perimeters for each rectangle with an area of $36 \mathrm{~m}^{2}$.

|  | $36 \mathrm{~cm}^{2}$ | $36 \mathrm{~cm}^{2}$ | $36 \mathrm{~cm}^{2}$ | $36 \mathrm{~cm}^{2}$ | $36 \mathrm{~cm}^{2}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\boldsymbol{a}$ |  |  |  |  |  |
| $\boldsymbol{b}$ |  |  |  |  |  |
| P |  |  |  |  |  |

Use a compass and a ruler to plot:
a) a circle with a center in a point $\mathbf{O}$ and the radius $=4 \mathrm{~cm}-\operatorname{Circ}(\mathbf{O}, 4 \mathrm{~cm})$
b) $\operatorname{Circ}(\mathbf{O}, 5 \mathrm{~cm})$
c) $\operatorname{Circ}(\mathbf{W}, 4 \mathrm{~cm})$
d) $\operatorname{Circ}(\mathbf{R}, 3 \mathrm{~cm}$

R

- 0

Use a straight edge to plot straight lines WR, OR, WO. Make sure these lines continue beyond the points $\mathrm{O}, \mathrm{R}$, and W .

Solve the problems:
a) Arthur went to the store 4 times last month. He buys 5 bottles of apple juice each time he goes to the store. How many bottles of apple juice did Arthur buy last month?
b) There are 8 pencils in each box. How many pencils are in 9 boxes?
c) There are 20 liters of honey total in 3 jars. How many liters will be in one jar if we distribute all that honey evenly among 10 jars?
d) We need 120 logs to build 2 houses. How many logs do we need to build 6 houses?
e) Evelyn went to the store 8 times last month. She buys 11 stickers each time she goes to the store. How many stickers did Evelyn buy last month?

Multiply (in columns):
a) $812 \times 6=$
b) $406 \times 24=$
c) $123 \times 52=$


Find all unknown values and fill in the table:

| $\boldsymbol{x}$ | 123 | 625 |  | 419 |  | 236 | 76 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ | 99 |  | 167 | 192 | 374 |  | 287 |
| $\boldsymbol{x}+\boldsymbol{y}$ |  | 702 | 298 |  | 429 | 509 |  |


| $\boldsymbol{x}$ | 234 | 625 |  | 419 |  | 236 | 276 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ | 99 |  | 167 | 192 | 374 |  | 109 |
| $\boldsymbol{x}-\boldsymbol{y}$ |  | 223 | 298 |  | 429 | 83 |  |


| $\boldsymbol{x}$ | 56 | 36 | 63 |  | 72 | 42 | 35 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ | 8 |  | 7 | 4 |  |  | 7 |
| $\boldsymbol{x}: \boldsymbol{y}$ |  | 4 |  | 7 | 9 | 6 |  |


| $\boldsymbol{x}$ | 7 |  | 9 | 4 |  |  | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ |  | 5 |  | 8 | 3 | 6 |  |
| $\boldsymbol{x} \times \boldsymbol{y}$ | 56 | 25 | 63 |  | 27 | 18 | 42 |

14 Follow instructions below and fill in the table in the end.
a). Mark a point on the straight-line $\boldsymbol{s}$. How many rays do you see? $\qquad$
b) Mark 2 points on the line $\boldsymbol{q}$. How many rays do you see? $\qquad$
c) Mark 3 points on the line $\boldsymbol{w}$. How many rays do you see? $\qquad$
d) Mark 4 points on the line $\boldsymbol{m}$. How many rays do you see? $\qquad$ _

m

| \# of points marked | 1 | 2 | 3 | 4 | 5 | 10 | $x$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| \# of rays produced |  |  |  |  |  |  |  |

