Math 8CP Homework
March 25 - April 1
Round to nearest tenth, when necessary.

## Monday:

1) Graph both tables and write a rule.

| $x$ | -3 | 0 | 3 |
| :---: | :---: | :---: | :---: |
| $y$ | 5 | 4 | 3 |


| $x$ | -3 | 0 | 3 |
| :---: | :---: | :---: | :---: |
| $y$ | -4 | -2 | 0 |

Rule $\qquad$
b. What is the solution? Show why algebraically:

Name $\qquad$
Per $\qquad$ Date $\qquad$

Rule $\qquad$
$\qquad$


## 2. Find the volume:

a.

b.

3. Find the dimensions of the square or circle. Mark the side or radius on the diagrams: Round to the nearest tenth, if necessary.
a. Area $=64 \mathrm{~cm}^{2}$
side $=$ $\qquad$
perimeter $=$ $\qquad$
$\square$
b. Area $=169 \pi$ in $^{2}$ radius = $\qquad$ circumference = $\qquad$
4. Find the missing sides of the right triangles: Round to the nearest tenth, if necessary.
a.

b.

2.7 cm

## Tuesday:

1) Find the slopes of the line that pass through these points. Then, find the distance between the two points:
$(4,5)$ and $(-3,-5)$
Slope= $\qquad$
Distance= $\qquad$

2. What is the length on an edge of a cube that has a volume of $512 \mathrm{~cm}^{3}$ ? Sketch the cube including its dimensions.

What is the surface area of this cube?
3. a. Write the ordered pairs represented in the function:
b. fill in the table that represents the function:

| $\mathbf{x}$ |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{y}$ |  |  |  |  |  |


4. Solve:
a. $6(x-8)+12=3 x+24$
b. $6(x+4)=4 x+12+x$

## Check step:

Wednesday (Per 3,5) or Thursday (Per 4,6):

1. Find the rule (equation) of the following linear functions:
a.

b.

| $x$ | $y$ |
| :---: | :---: |
| -3 | -8 |
| -1 | -7 |
| 1 | -6 |
| 3 | -5 |

2. Fill in the chart :

| Original form | Factored form <br> (repeated multiplication) | Simplified <br> exponent form |
| :--- | :---: | :---: |
| $7^{5} \bullet 7^{4}$ |  |  |
| $\left(4^{2} x^{3}\right) \cdot\left(4 x^{4}\right)$ |  |  |
| $3 \bullet x^{3} \cdot a \bullet 3 \bullet x^{3} \bullet \mathrm{a}^{2}$ |  |  |
| $4 x^{4} \bullet 7 x \bullet x^{4}$ |  |  |

3. Find the raduis:
a.


Volume $=324 \pi \mathrm{~cm}^{2}$
b.

4. Simplify:
a. $-x y-x^{2}+2 x-5 x y+3 x^{2}-x$
b. $-2(3 x-y)-2 x-4 y+x$
c. $\frac{84}{12}+(13-10)^{2} \cdot 6$

Friday (Per 3,5) or Monday (Per 4,6):

1. The area of a circle is $1017.88 \mathrm{~cm}^{2}$. Find the circumference. (Hint: first find the radius!)
2. You leave your home and drive your car 25 miles east and then drive another 14 miles north. If you drive directly back home from where you are, how many miles did you travel total? Draw a diagram and solve.
3. Blake starts a savings account with $\$ 50$ and adds $\$ 20$ every month. Graph using appropriate scale:


Rule: $\qquad$
Interpret the slope in the context of this problem:

Interpret the y-intercept in the context of this problem:

In how many months will Blake have at least $\$ 360$ ?
4. Write the rule for the linear function given in the table and complete the table:

| $x$ | -2 | 0 | 2 | 5 | 22 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $y$ | 8 |  | 16 |  |  |

Rule: $\qquad$
5. Find the value of $x$, then find the measure of the angles.

What are these angles called?


