

**Simplify the following expressions. Show your work.**

1. Calculate the following problems.  
a) Find the area of a circle whose radius is 8.

- b) Find the circumference of a circle whose radius is 8.

2. Look at the table below and tell whether or not  $y$  is directly proportional to  $x$ .

<b>x</b>	3	6	12	21
<b>y</b>	2	4	8	14

- a) Is this a direct proportion? Explain how you know:

- b) If so, write the direct proportion equation.

3. Solve the following problems.

a)  $3.5 - 7.42 + (-2.3)$

b)  $-\frac{2}{3} \cdot \frac{4}{5} + \frac{3}{15}$

c)  $(-4) \cdot (-2) + 12 \div (-4) - (-2)$

**Solve each integer problem. Show all of your work.**

4.  $-95 - 24$

5.  $-12 + 44$

6.  $(-55) \cdot 2 \div 5 - 3$

7.  $(-16) \div 2 + (3 - 8) - (-14)$