

# Wednesday, August 29, 2012

TISK Problems:

1. If a scatter plot shows a strong negative correlation between weight (in pounds) and number of hours of TV watched per week, what recommendation might you make to someone who wanted to lose weight?
2. Find the constant difference of the sequence:  
34, 4, 2, 4, 34, 164, ...
3. Multiply:  $\frac{3}{16} \cdot \frac{4}{21}$

We will have 3 Mental Math questions today.

Please do not use the whiteboards until instructed to do so.

Homework: Worksheet 2.6

# Homework Check

1)  $5(t - 7)$

2)  $12a - 18$

3)  $-24x + 96$

4)  $r(t + k)$

5)  $ab + aw$

6)  $10t - 21$

7)  $x - 2z$

8)  $-4a + 4b$

9)  $4x - 3y$

10)  $7a + 6b + 4c$

11)  $-m + 8n + 4p$

12)  $6x - 2a - 5$

13)  $-9b + 3 - 6z$

14)  $-c - d - y$

15)  $-5a - 3c - 4$

# Adding and Subtracting Expressions

- In order to add and subtract expressions, you add and subtract their *like terms*.
- What makes two terms *like* terms?
  - They have the same variable parts (with the same exponents)
  - For example:
    - $3x$  and  $4x$  are like terms
    - $8y$  and  $9m$  are NOT like terms
    - $5c^2$  and  $7c^2$  are like terms
    - $6k^3$  and  $9k^2$  are NOT like terms

# Simplifying Expressions

- When you have like terms in an expression, you can simplify the expression by “combining like terms”.
- To do so, you add the number parts of the like terms.
- Simplify the expression:

$$7x + 8y - 5 + 11x - 9$$

$$7 + 11 = 18$$

$$7x + 11x = 18x$$

$$-5 + (-9) = -14$$

$$18x + 8y - 14$$

## Practice adding & subtracting expressions

- $6m - 2m$ 
  - $4m$
- $4g + (8g - 1)$ 
  - $12g - 1$
- $6ab + 2 + 12ab - 8$ 
  - $18ab - 6$
- $8y - (4y - 6)$ 
  - $4y + 6$
- $7h + 9 - (6h + 12)$ 
  - $h - 3$  or  $1h - 3$
- $18x - 2(3x - 9) + 7$ 
  - $12x + 25$
- $8g - 9z + (4g - 10)$ 
  - $12g - 9z - 10$
- $6u - (3 - u) + 2$ 
  - $7u - 1$
- $7v - 8(-5v + 2) + 16$ 
  - $47v$
- $12e - 9w + 2(4e + w)$ 
  - $20e - 8w$