

Tuesday, August 28, 2012

TISK Problems

1. Draw a scatter plot with a positive correlation. Write a sentence describing the correlation and label your axes appropriately.
2. Find the constant difference:
22, -8, -10, -88, 22, 152, 502
3. Which difference was the constant difference in problem #2?

There will be 3 Mental Math questions today.

Homework: Worksheet 2.5

Homework Check

$$12) (24 + 27) + 56$$

$$= (27 + 24) + 56 \text{ Comm. Prop.}$$

$$= 27 + (24 + 56) \text{ Associative}$$

$$= 27 + 80$$

$$= 107$$

$$13) 25(7+4)$$

$$= 25 \cdot 7 + 25 \cdot 4 \text{ Distributive Prop.}$$

$$= 175 + 100$$

$$= 275$$

$$14) 198$$

$$15) 0$$

$$16) 870$$

$$17) 118,000$$

$$22) 112$$

$$23) 40 \cdot 18 = 40(10 + 8)$$

$$= 40 \cdot 10 + 40 \cdot 8$$

$$= 400 + 320$$

$$= 720$$

$$24) 9 \cdot 680 = 9(600 + 80)$$

$$= 9 \cdot 600 + 9 \cdot 80$$

$$= 5400 + 720$$

$$= 6120$$

$$25) 70 \cdot 540 = 70(500 + 40)$$

$$= 70 \cdot 500 + 70 \cdot 40$$

$$= 35,000 + 2,800$$

$$= 37,800$$

§2.5 Continued

- ▶ Using the Distributive Property
 - Simplify: $4(x + 5)$
 - $= 4(x) + 4(5)$
 - $= 4x + 20$
 - You try it. Simplify: $3(x - 8)$
 - $= 3(x) + 3(-8)$
 - $= 3x + (-24)$
 - $= 3x - 24$

§2.5 Continued

- ▶ Use the Distributive Property to write equivalent expressions for each expression below.
 - $-6(3r - 9)$
 - $= -6(3r) + (-6)(-9)$
 - $= -18r + 54$
 - $8y + 28xy$
 - $= 4(2y + 7xy)$
 - $= 4y(2 + 7x)$

Opposite of an Expression

▶ What is a term?

- Terms are variable or numerical expressions separated by addition.

▶ How many terms are in these expression?

- $-3x^3 + 27$

- 2

- $5n^2 + 3n - 8$

- 3

- $-9r^5 + 1 - 7w + 12c$

- 4

- $\frac{1}{2}h^3$

- 1

Opposite of an Expression

- ▶ To find the opposite of an expression, you write the opposite of *each term* of the original expression.
 - State the opposite of each expression.
 - $-3x^3 + 27$
 - $3x^3 - 27$
 - $5n^2 + 3n - 8$
 - $-5n^2 - 3n + 8$
 - $-9r^5 + 1 - 7w + 12c$
 - $9r^5 - 1 + 7w - 12c$
 - $\frac{1}{2}h^3$
 - $-\frac{1}{2}h^3$

Opposite of an Expression

- ▶ What do you do when there are parentheses?
- ▶ Directions: State the opposite of each expression.
 - $-7k + (3n - 8)$
 - Start by distributing (if necessary) to eliminate parentheses.
 - $= -7k + 1(3n - 8)$
 - $= -7k + 1(3n) + 1(-8)$
 - $= -7k + 3n + (-8)$
 - $= -7k + 3n - 8$
 - Now, write the opposite:
 - $= 7k - 3n + 8$

The “Tricky” Ones...

- ▶ Use the Distributive Property to write an equivalent expression.
 - $5 - 3(2m - 6)$
 - $= 5 + (-3)(2m + (-6))$
 - $= 5 + (-3)(2m) + (-3)(-6)$
 - $= 5 + (-6m) + 18$
 - $= 5 - 6m + 18$
 - $= -6m + 23$
- ▶ Write the opposite of the expression.
 - $6m - 23$

The “Tricky” Ones...

- ▶ Use the Distributive Property to write an equivalent expression.
 - $5z - (3v - 7)$
 - $= 5z + (-1)(3v + (-7))$
 - $= 5z + (-1)(3v) + (-1)(-7)$
 - $= 5z + (-3v) + 7$
 - $= 5z - 3v + 7$
- ▶ Write the opposite of the expression.
 - $-5z + 3v - 7$

Homework

- ▶ Worksheet 2.5
- ▶ Make sure to show ALL WORK in a neat and organized fashion ON THE WORKSHEET.