Algebra I EOC Practice #4

SPI 3102.1.4: Translate between representations of functions that depict real-world situations.

1. Carrie bought 3 kinds of flowers. The costs are summarized in the table below.

   Flower Cost

Flower	Number Purchased	Cost
Pansies	10	$25
Petunias	8	$21
Roses	7	$19

   Which equation correctly expresses the relationship between the number of flowers purchased (f) and the cost (c)?

   A. c = 2f + 5
   B. c = 2.5f
   C. c = f + 15
   D. c = 3f – 3

2. Given the sequence 2, 8, 26, 80, …

   Which function below correctly models the sequence, if x represents each number in the sequence?

   A. f(x) = x + 6
   B. f(x) = 2x + 4
   C. f(x) = 4x – 6
   D. f(x) = 3x + 2

3. The table below describes the number of inches in each foot. Which equation best models this relationship?

Number of Feet (x)	1	2	3	4
Number of Inches f(x)	12	24	36	48

   A. f(x) = x + 12
   B. f(x) = 3x – 12
   C. f(x) = 12x
   D. f(x) = 2x - 10

4. Joel sold lemonade at the summer league baseball tournament for 3 days. He purchased lemons, sugar, and cups each day for $200.00. He sold the lemonade for $1.50 per cup.

   Which equation correctly models the profit Joel made each day?

   Lemonade Profit

Day	Number of Cups Sold (s)	Profit (p)
Friday	300	$250.00
Saturday	350	$325.00
Sunday	400	$400.00

   A. p = s – $50
   B. p = $1.50s - $200.00
   C. p = s - $200.00
   D. p = $200.00s - $1.50

5. Lorena works for a company that packages CDs from various artists to send to radio stations for promotional events. The table below summarizes the CDs sent to each station.

Radio Station	Number of CDs Sent per Event	Total Sent to Each Station
WKBX	12	50
WLHR	8	30
WPTC	9	35

   Which equation below correctly expresses the relationship between the number of CDs sent per event (x) and the total sent to each station, f(x)?

   A. f(x) = 4x + 2
   B. f(x) = 5x – 10
   C. f(x) = 3x + 6
   D. f(x) = x + 38