

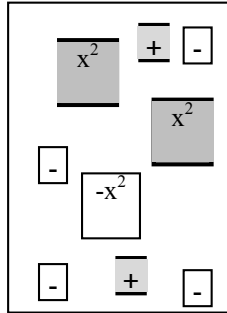
Please show all of your work on THIS paper. **BOX** your final answer.

1 Matching: Write the letter of the tile arrangement that could match the expression.

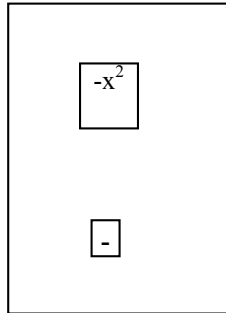
a) $2x - 4$
= _____

b) $x^2 - 2$
= _____

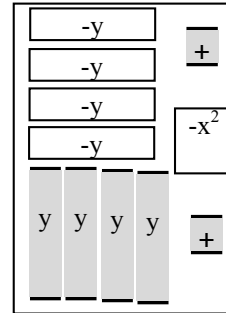
c) $2 - x^2$
= _____



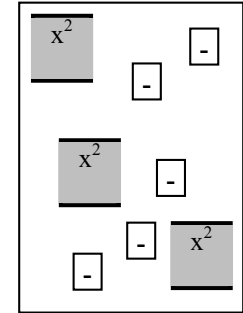
(A)



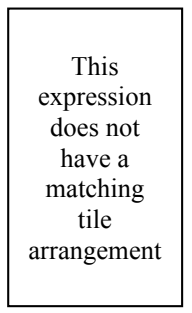
(B)



(C)



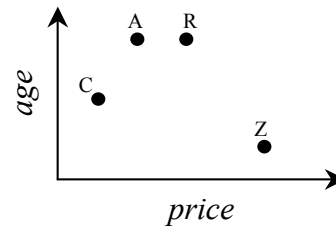
(D)



(E)

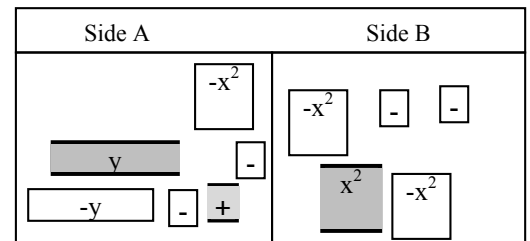
2 Which statement best describes the graph about used cars C, A, R and Z?

- A. A and R are the same age and price
- B. Z is the newest car but the lowest price
- C. The most expensive car is also the newest
- D. There are two cars with the same price
- E. The age of C is exactly 8 years old

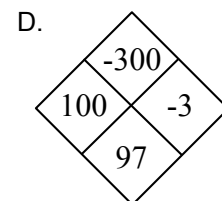
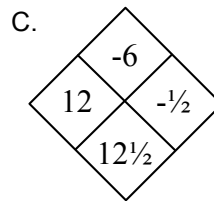
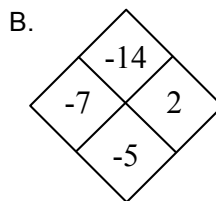
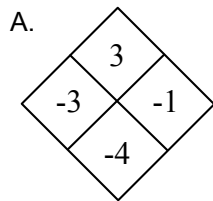


3 Use legal moves to simplify the tiles to the right. Circle the comparison which best describes the two sides.

A > B A < B A = B No Solution



4 Which diamond problem is filled out incorrectly?



5 David correctly solved the equation below but doesn't know what his answer means. What does his answer mean?

$$\begin{aligned} 2x + x - (x - 3) &= 3x - 1 - (x - 4) \\ 2x + x - x + 3 &= 3x - 1 - x + 4 \\ 2x + 3 &= 2x + 3 \\ 3 &= 3 \end{aligned}$$

- (A) The equation has one solution: $x = 3$
- (B) The equation has no solution
- (C) The equation has infinitely many solutions: $x =$ all real numbers
- (D) David got an incorrect answer



Chapter 2 Test | Algebra 1

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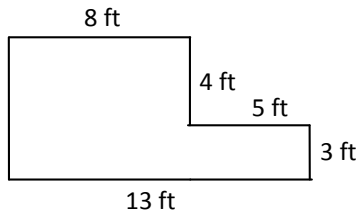
6 Solve the problem below using a Guess and Check table. Your table must include at least three guesses.

Joe has 20 more red blocks than green blocks and three times as many yellow blocks as green blocks. If Joe has 450 blocks altogether, how many of each color does he have? **Write your final answer in a sentence.**

Labels →	# of Green Blocks			Total Blocks	High/Low
Equations →	(guess)				(no equation)

Final Answer (Sentence) →

7 Draw a dotted line inside the figure that divides it into exactly two rectangles. Next determine how long any unlabeled sides are and label them on the figure. Finally, find the area and perimeter.



Area =

Perimeter =

8 Solve using algebra, show all algebraic steps.

a. $6x + 4x = 2(50)$

b. $4x - (2 - 6x) = 8$

c. $3x = 11$

d. $5x + 8 = 4x + 15$

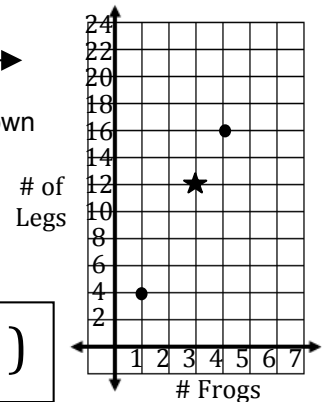
a		b		c		d	
---	--	---	--	---	--	---	--

9 The Cupertino Pet Shop sells frogs. Depending on the number of frogs at the store, the number of frog legs varies according to the graph shown. →

a. Write a sentence that clearly describes the meaning of the point on the graph shown by the star

b. Write the coordinate of the point on the graph that would represent the pet shop having 5 frogs. (Hint: you may want to plot the point first...)

(,)





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10 Simplify completely.

a. $3y - y + 5x + 3 - 7x$

b. $2x - (14x - 12)$

c. $4m + 8m^2 + 6m + 3 - 8m^2 - 10m$

d. $\frac{2}{3}x + 3y + \frac{1}{3}x + 2y$

11 Evaluate the expressions for the given values.

a. $6m + 2n^2$ for $m = 8$ and $n = 5$

b. $\frac{5x}{3} - 2$ for $x = -15$

12 The expression below has been simplified correctly. Explain what was done to get to the next steps.

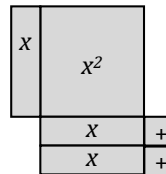
$5 + 10m - (2 - 8m)$ Original expression

$5 + 10m - 2 + 8m$ _____

$18m + 3$ _____

13 Write simplified expressions for the area and perimeter.

a. Area =



b. Perimeter =



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Notes from version 1:

#12 – Changed final expression to $18m + 3$ from $2m + 3$.