

1. To support a local senior citizens center, a student club sent a flyer home to the students in the school. The flyer said, "Please bring in money to support the senior citizens center. Paper money and coins accepted!" Their goal is to raise dollars.

Match each quantity to an expression, an equation, or an inequality that describes it.

A. the dollar amount the club would have if they reached half of their goal

1.  $T + 50$

B. the dollar amount the club would have if every student at the school donated 50 cents to the cause

2.  $0.5T$

C. the dollar amount the club could donate if they made \$50 more than their goal

3.  $0.25n$

D. the dollar amount the club would still need to raise to reach its goal after every student at the school donated 50 cents

4.  $0.5n$

E. the dollar amount the club would have if half of the students at the school each gave 50 cents

5.  $T - 0.5n$

2. Large cheese pizzas cost \$5 each and large one-topping pizzas cost \$6 each. Write an equation that represents the total cost,  $C$ , of large cheese pizzas and large one-topping pizzas

3. Elena bikes 20 minutes each day for exercise. Write an equation to describe the relationship between her distance in miles,  $D$ , and her biking speed, in miles per hour, when she bikes:

a. at a constant speed of 13 miles per hour for the entire 20 minutes

b. at a constant speed of 15 miles per hour for the first 5 minutes, then at 12 miles per hour for the last 15 minutes

c. at a constant speed of  $M$  miles per hour for the first 5 minutes, then at  $N$  miles per hour for the last 15 minutes

4. A landscaping company is delivering crushed stone to a construction site. The table shows the total weight in pounds,  $W$ , of loads of crushed stone.

Which equation could represent the total weight, in pounds, for  $n$  loads of crushed stone? Justify your answer.

number of loads of crushed stone	total weight in pounds
0	0
1	2,000
2	4,000
3	6,000

A.  $W = \frac{6,000}{n}$

B.  $W = 6,000 - 2,000n$

C.  $W = 2,000n$

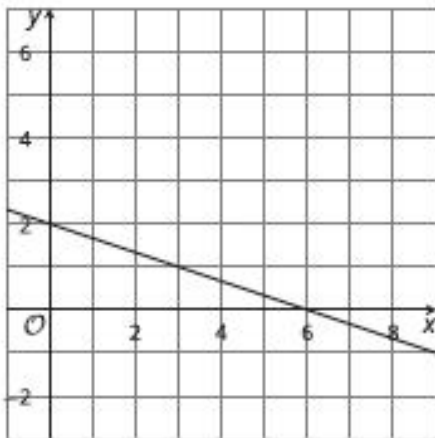
D.  $W = n + 2,000$

5. The drama club is printing t-shirts for its members. The printing company charges a certain amount for each shirt plus a setup fee of \$40. There are 21 students in the drama club.

a. If there are 21 students in the club and the t-shirt order costs a total of \$187, how much does each t-shirt cost? Show your reasoning.

b. The equation  $201.50 = f + 6.50(21)$  represents the cost of printing the shirts at a second printing company. Find the solution to the equation and state what it represents in this situation.

6. Here is a graph of the equation  $x + 3y = 6$ . Select **all** coordinate pairs that represent a solution to the equation. Explain how you know.



- A. (0, 2)
- B. (0, 6)
- C. (2, 6)
- D. (3, 1)
- E. (4, 1)
- F. (6, 2)