

Solve the problems.

1 Kia buys a shirt that costs \$12.50 and some pairs of socks that are \$2.50 each. She pays a total of \$27.50. How many pairs of socks did Kia buy?

Show your work.

How can you get the term with the variable by itself on one side of the equation?



Solution: _____

2 Draw lines to show the correct order of the steps that you could take to solve the equation $\frac{2}{5}\left(x + \frac{5}{2}\right) = 27$.

Step 1	$\frac{2}{5}x = 26$
Step 2	$\frac{2}{5}x \cdot \frac{5}{2} = 26 \cdot \frac{5}{2}$
Step 3	$x = 65$
Step 4	$\frac{2}{5}x + 1 = 27$

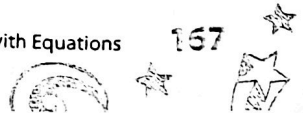
How can the distributive property help you solve this problem?



3 The length of each of the two congruent sides of an isosceles triangle is $3x - 1$. The length of the third side is $2x + 1$. The perimeter is 55 feet. Which equation does NOT represent the perimeter?

- A $8x - 1 = 55$
- B $6x - 2 + 2x + 1 = 55$
- C $2(3x - 1 + 2x + 1) = 55$
- D $2(3x - 1) + (2x + 1) = 55$

It may be helpful to draw a diagram of the triangle and label its sides.



Solve.

4 Karif plans to use a 20% off coupon on a \$27.60 purchase. Tell whether each statement is *True* or *False*.

- a. The discounted price is \$7.60. True False
- b. The discounted price will be 80% of the original purchase price. True False
- c. Karif will save \$22.08 with his coupon. True False
- d. Karif would save more money if he used a \$5 off coupon. True False

A coupon gives the customer a discount.



5 T-shirts are on sale for \$4 off the regular price. Jeb buys 5 T-shirts for a total of \$45.05, including a 6% sales tax. Which equation can Jeb use to find the regular price, r , of 1 T-shirt?

- A $0.06(5r - 4) = 45.05$ C $1.06 \cdot 5(r - 4) = 45.05$
- B $5(r - 4) = 1.06 \cdot (45.05)$ D $5(r - 4) + 0.06r = 45.05$

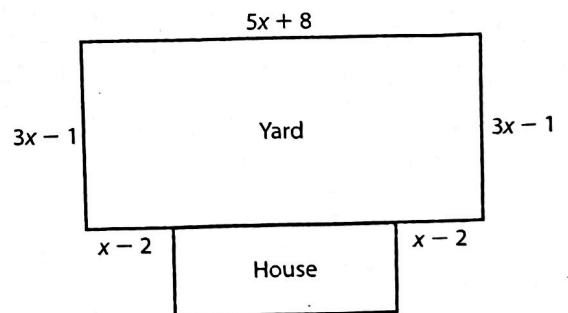
How can you express the sale price of 5 T-shirts?



6 Jelani's family is putting up a fence around their yard shown in the diagram below. They don't need to fence the wall of the house that is against the yard. They need 106 feet of fencing. The length of the yard is $5x + 8$. Find the length of the yard.

Show your work.

Have you answered the question that the problem asks?



Solution: _____