

You must show work to receive credit for EVERY problem.


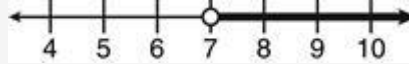

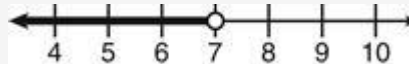
- Simplify: $4x - 6x + 12 - 20 - 5x$
- Simplify: $5(3x + 18) - 2(x + 7)$
- Simplify: $-2(4x - 5y - 5x)$
- Lisa made 42 gallons of cider over two days. She made twice as many gallons of cider on day two as she made on day one. How many gallons of cider did Lisa make on day two? You must write and solve an equation to receive credit.
- Daniel is paid \$10 per week for selling newspaper subscriptions. He is also paid \$3.50 for each new customer (x) that signs up for the subscription. Which equation represents the amount (y) Daniel earns per week?

A. $y = 3.5x$ B. $y = 10 + x$ C. $y = 10 + 35x$ D. $y = 10 + 3.5x$
- What is the value of p in the equation? $p - 4 = -8$
- Mr. Harold's total pay for last week was \$875. He was paid \$25 per hour plus a bonus of \$75. How many hours did Mr. Harold work last week? You must write and solve an equation to receive credit.
- Erin opened a savings account with \$50. She deposited \$35.50 into the account every month until she had a total of \$653.50. Which equation could be used to find m , the number of months she made deposits into the account?

A. $653.5 = 50 + 35.5m$ B. $653.5 + 50 = 35.5m$ C. $653.5 = 50 - 35.5m$ D. $653.5 \div 50 = 35.5m$
- It will cost the Band Booster Club \$5.00 per shirt to make school T-shirts. As a fundraiser, the club will sell the T-shirts for \$7.50 each. Which equation could be used to find s , the number of shirts sold to make a \$112.50 profit?

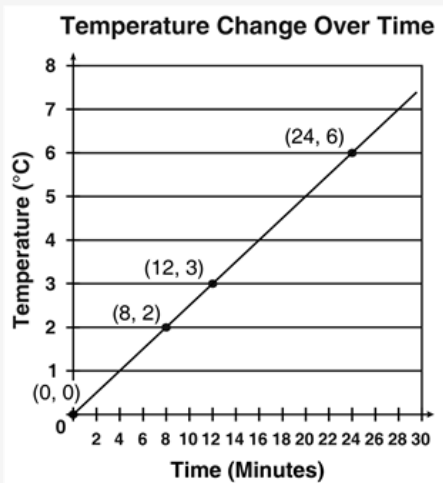
A. $7.50s - 5.00 = 112.50$ C. $112.50 - 7.50s = 5.00s$
 B. $112.50 - 5.00s = 7.20s$ D. $7.50s - 5.00s = 112.50$
- Mr. Jones needs at least 1 gallon of punch for every 16 students at the school dance. He has 8 gallons of punch. The inequality below represents this situation, where x is the number of students that can be served.
 $\frac{x}{16} \leq 8$ What is a reasonable number of students who can be served with 8 gallons of punch?

A. 120 B. 130 C. 160 D. 200
- If Andrea does 5 more hours of community service, she will have at least the 12 hours of service required by her school. This can be represented by the inequality below, where x stands for the number of hours of community service that Andrea has already done.
 $x + 5 \geq 12$
 Which number line best represents all values of x that satisfy this inequality?

A.  C. 
 B.  D. 
- Rita bakes cakes to earn money. She spent \$30 for supplies to make 15 cakes. Which inequality shows how much Rita has to charge per cake to earn a profit of at least \$150?

A. $x \leq \$12$ B. $x \geq \$12$ C. $x \leq \$8$ D. $x \geq \$8$

13. What are all possible values of x if $\frac{2x}{3} - 5 \geq 18$?
- A. $x \geq \frac{26}{3}$ B. $x \geq \frac{23}{2}$ C. $x \geq \frac{46}{3}$ D. $x \geq \frac{69}{2}$
14. Evaluate $(1.2)^2 - 8.5 \times 1.7 + (3 - 1.4)^2$. NO CALCULATOR. You must show your calculations to receive credit!
15. Aliya hikes up a mountain for 2 hours. During this time, she hikes a distance of $1\frac{1}{3}$ miles. What is Aliya's rate in miles per hour? NO CALCULATOR. You must show your calculations to receive credit.
16. During a bake sale, $1\frac{1}{2}$ dozen cookies were sold in $\frac{1}{3}$ hour. What is the unit rate for the dozens of cookies sold per hour? NO CALCULATOR. You must show your calculations to receive credit.
17. Jane put a 12-in. tall bucket under a leak in her sink. The bucket fills at a constant rate of $\frac{1}{2}$ in. every $\frac{1}{6}$ of an hour. How many hours will it take to fill the bucket?
18. Jim's soccer team has a record of 12 wins and 8 losses. Which team below has the same rate of wins and losses?
- A. a hockey team with 7 wins and 3 losses C. a hockey team with 10 wins and 5 losses
 B. a volleyball team with 9 wins and 6 losses D. a basketball team with 18 wins and 14 losses
19. The graph shows data from a science experiment in which the temperature of a substance was measured over time.



What is the constant of proportionality for degrees per minute?

20. The number of gallons of gasoline purchased are shown in the table below.

Gallons of Gasoline	Cost
6.4	\$20.80
8.2	\$26.65
11.8	\$38.35
15.6	\$50.70

What is the price for one gallon of gasoline? NO CALCULATOR. You must show your calculations to receive credit.