


You must show work for EVERY problem to receive credit.


- Simplify: $-(-6x + 3) - (2x + 10)$. NO CALCULATOR. You must show your calculations to receive credit.
- What is $\frac{7}{1000}$ written as a percent?
- Simplify: $\frac{5}{6} + \frac{11}{12} + \frac{8}{7}$? (NO CALCULATOR) I must see your calculations to receive credit.
- A group of 4 people went to a movie. Each person bought a large drink and a small box of popcorn. They paid a total of \$33.00 for the drinks and boxes of popcorn. The cost of each box of popcorn, including tax, was \$3.75. What was the cost, including tax, of each drink?
- If $x + 3 = 7$, what does $(x + 1)^2$ equal?
- An underwater vehicle is at a depth of 1,432 feet. The vehicle has a descent rate of 480 feet per minute. How many minutes will it take the underwater vehicle to reach a depth of 10,792 feet?
- A girl read a book that had 1,159 pages. She read 72 pages on the first day. She then read 40 pages per day until she finished the book. Which equation can be used to find the number of days, d , it took her to read the book?


A. $72d + 40 = 1,159$ B. $40d - 72 = 1,159$ C. $40d + 72 = 1,159$ D. $72d - 40 = 1,159$
- An office building is 20 feet taller than twice the height of a bank building. If the office building is 320 feet tall, how tall is the bank building? You must write and solve an equation to receive credit.
- The formula for converting temperatures from Fahrenheit (F) to Celsius (C) is $C = \frac{5}{9}(F - 32)$. What is the temperature in Fahrenheit if the temperature is 25° Celsius?
- Julie has \$200 to plan a dance. There is a one-time fee of \$150 to reserve a room. It also costs \$1.50 per person for food and drinks. What is the maximum number of people that can come to the dance?


A. 33 B. 34 C. 100 D. 133
- Shane has \$6 more than three times the amount of money that Jerry has. If Shane has more than \$99, which inequality represents the number of dollars (j) Jerry could have?

A. $j < 16$ B. $j > 16$ C. $j < 31$ D. $j > 31$
- 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. 

B. 

B. 

D. 
- On a park map, the distance from a picnic table to the hiking trail is 3 centimeters (cm). The map uses a scale of 2 cm = 150 meters (m). What is the actual distance from the picnic table to the hiking trail?

14. A photograph was reduced using the scale factor of $\frac{2}{3}$. The original photograph was 9 inches wide and 12 inches long. Which proportion could be used to find w , the width of the reduced photograph?

A. $\frac{w}{9} = \frac{2}{3}$

B. $\frac{9}{w} = \frac{2}{3}$

C. $\frac{w}{12} = \frac{2}{3}$

D. $\frac{12}{w} = \frac{2}{3}$

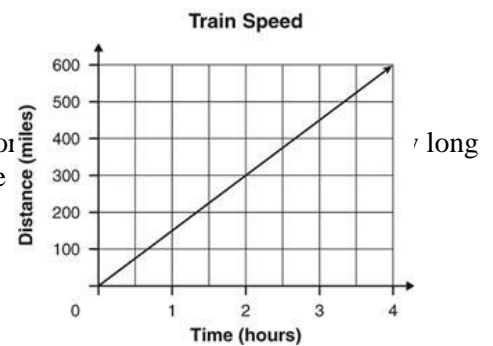
15. During a bake sale, $1\frac{1}{2}$ dozen cookies were sold in $\frac{1}{3}$ hour. What is the unit rate for the dozens of cookies sold per hour? NO CALCULATOR. You must show your calculations to receive credit.

16. Paul used $1\frac{1}{4}$ gallons of paint to cover $\frac{3}{8}$ of the walls in his living room. How many gallons of paint will Paul need to paint all the walls in his living room? NO CALCULATOR. You must show your calculations to receive credit.

17. If a snail can move $\frac{3}{10}$ of a meter every $\frac{1}{12}$ hour, what is the speed of the snail, in meters per hour? NO CALCULATOR. You must show your calculations to receive credit.

18. Isabelle’s school has a total of 486 seventh grade students. There are 3 technology classes, each with 27 seventh grade students. What is the ratio of seventh grade students taking a technology class to all seventh grade students?

19. According to this graph, how fast is the train moving in miles per hour?



20. On his timed typing test, Nader typed 125 words in 5 minutes. Which proportion it will take Nader to type his 500-word history essay if he types at this same

A. $\frac{125}{5} = \frac{x}{500}$

B. $\frac{5}{500} = \frac{x}{125}$

C. $\frac{x}{5} = \frac{125}{500}$

D. $\frac{5}{125} = \frac{x}{500}$