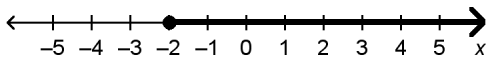


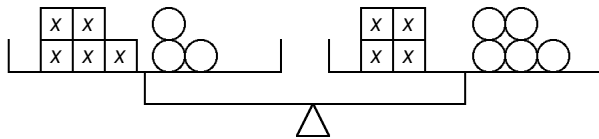
Math 9 Unit 6 Linear Equations and Inequalities Practice Test

Short Answer

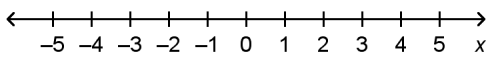
1. Write an equation for this statement: A number divided by 3, plus 5, is 8.
2. Solve: $1.7b + 2.6 = 10.1 - 0.8b$
3. Solve: $3(4q - 2) = 2(3q + 4)$
4. Write the inequality whose solution is graphed on the number line.



5. Solve: $4 + x \leq 8$
6. Solve: $\frac{x}{3} + 5 > 12$
7. Fifteen percent of a number is 147.
Write and solve an equation to determine the number.
8. Write the equation represented by this picture. Solve the equation.

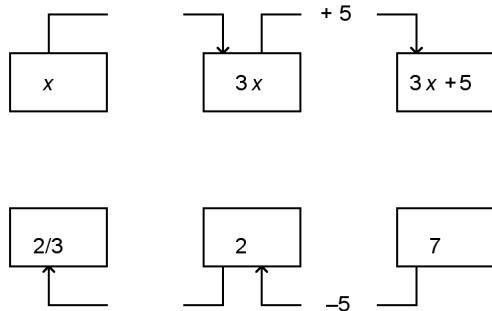


9. Define a variable and write an inequality to describe the situation.
You must be less than 149 cm tall to go on the ride.
10. Solve, then graph this inequality: $\frac{x}{3} + \frac{5}{6} \geq \frac{x}{2} + \frac{1}{3}$



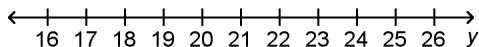
11. Gary has \$224.36 in his bank account. He must maintain a minimum balance of \$600 in his account to avoid paying a monthly service fee.
How much money can Gary deposit into his account to avoid paying this fee?
 - a) Choose a variable, then write an inequality that can be used to solve this problem.
 - b) Solve the problem.

12. A games room charges a \$15 entrance fee, plus \$2.55 per hour of play time. Anne-Marie has \$25.20. For how long can she play in the games room?
- Choose a variable and write an inequality for this problem.
 - Solve the inequality.
13. The cost to rent a banquet hall is \$450, plus \$35 per person. A company's social committee has \$5350 to put towards renting a banquet hall. How many people could attend the function if they rented the banquet hall?
- Choose a variable and write an inequality to solve the problem.
 - Solve the inequality.
14. What are the missing values in this arrow diagram?



Problem

15. Eight multiplied by a number, minus 2, is 14. Write, then solve an equation to determine the number. Verify the solution.
16. You have to be 21 or under in order to play Junior Hockey.
- Define a variable and write an inequality to describe the situation.
 - Graph the inequality on a number line.



17. A charity is selling cookie dough for \$14 and sausage rings for for \$8. Alison has \$80 to spend on books and magazines.
- Write an inequality to represent the number of tubs of cookie dough and sausage rings Alison can buy.
 - Determine the maximum number of sausage rings she can buy if she buys 2 tubs of cookie dough.
 - Determine the maximum number of tubs of cookie dough she can buy if she buys 4 sausage rings. Show your work.