Page 308 - 309

3. Solve each equation. Verify the solution.

a) $-20.5 = 3b + 16.7$

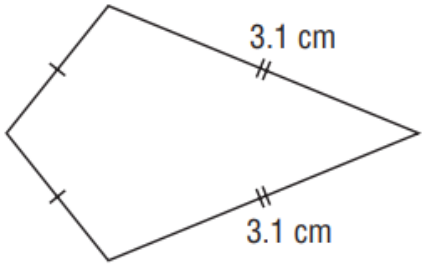
b) $\frac{t}{3} + 1.2 = -2.2$

c) $-8.5 = 6.3 - \frac{w}{2}$

d) $-2.3(x + 25.5) = -52.9$

Feb 24-8:20 AM

4. A kite has longer sides of length 3.1 cm and a perimeter of 8.4 cm.



a) Write an equation that can be used to determine the length of a shorter side.

b) Solve the equation.

c) Verify the solution.

Feb 24-8:24 AM

7. Solve each equation. Verify the solution.

a) $\frac{-72}{a} = -4.5, a \neq 0$

b) $-\frac{1}{3} + 2m = -\frac{1}{5}$

c) $12.5x = 6.2x + 88$

d) $2.1g - 0.3 = -3.3g - 30$

e) $\frac{3}{2}x + \frac{4}{3} = \frac{5}{8}x + \frac{5}{2}$

f) $5.4(2 - p) = -1.4(p + 2)$

Feb 24-8:25 AM

8. Kevin is planning to rent a car for one week. Company A charges $200 per week, with no charge for the distance driven. For the same car, Company B charges a $25 administration fee plus $0.35 per kilometre. Determine the distance driven that will result in equal costs at the two companies.

a) Define a variable and write an equation that can be used to solve the problem.

b) Use the equation to solve the problem.

c) Verify the solution.

10. Define a variable, then write an inequality that describes each situation.

a) Persons under 18 are not admitted.

b) A person must be at least 90 cm tall to go on an amusement park ride.

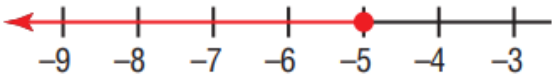
c) Horton can spend a maximum of $50.

d) A game is recommended for players 5 years and older.

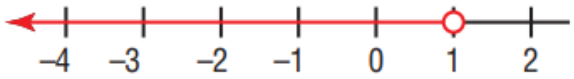
Feb 24-8:25 AM

11. Write the inequality represented by each number line.

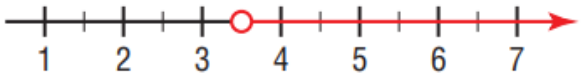
a)



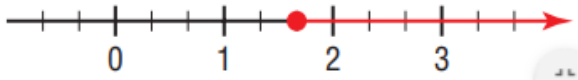
b)



c)



d)



15. The cost of a prom is $400 to rent a hall, and $30 per person for the meal. The prom committee has $10 000. How many students can attend?

a) Define a variable and write an inequality to model this problem.

b) Solve the inequality, then graph the solution.

Feb 24-8:26 AM

16. Solve each inequality.

Verify and graph the solution.

a) $7 + y < 25$

b) $-7y < 14$

c) $\frac{x}{4} > -2.5$

d) $5.2 - y < -5.5$

e) $13.5 + 2y \leq 18.5$

f) $24 + 3a \leq -6 + 7a$

Feb 24-8:28 AM

Practice Test

Page 310(Practice test)

2. Solve each equation.

a) $-3x - 0.7 = -7$

b) $\frac{26}{x} = 5 - 1.5$

c) $\frac{r}{3} + 5.4 = -3.2$

d) $2.4w - 5.6 = 3.7 + 1.9w$

e) $\frac{1}{4}c - \frac{7}{2} = \frac{1}{2}c + \frac{3}{4}$

f) $4.5(1.2 - m) = 2.4(-2m + 2.1)$

3. To cater a lunch, Tina's Catering charges \$100, plus \$15 per meal. Norman's Catering charges \$25, plus \$20 per meal. Determine the number of meals that will result in equal costs at the two companies.

a) Define a variable, then write an equation that can be used to solve this problem.

b) Solve the equation. Verify the solution.

4. Solve each inequality. Verify, then graph the solution.

a) $5 - t > 3$ **b)** $3(t + 2) \geq 11 - 5t$ **c)** $\frac{m}{4} + 5 \leq \frac{1}{2} - m$

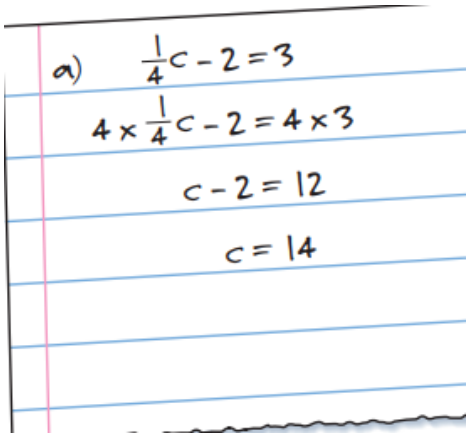
5. A car rental company charges $24.95 per day plus $0.35 per kilometre.
A business person is allowed $50 each day for travel expenses.
How far can the business person travel without exceeding her daily budget?

a) Define a variable, then write an inequality to solve the problem.

b) Solve the problem. Graph the solution.
How do you know that your answer is correct?

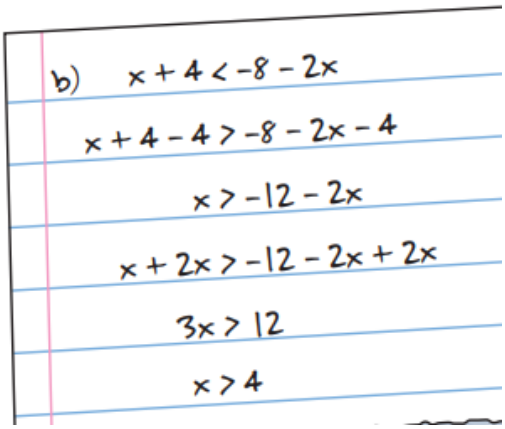
Feb 24-8:32 AM

6. Two students wrote these solutions on a test. Identify the errors. Write a correct and complete algebraic solution.



Feb 24-8:31 AM

6. Two students wrote these solutions on a test. Identify the errors. Write a correct and complete algebraic solution.



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