Class/Homework

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Don't need to graph or verify

* Questions:
7abd,9ace,10,11ac,12ac,
13,16ac,17a,18

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7. Solve each inequality. Verify the solution by substituting 3 different numbers in each inequality.

a) $4 - 2t < 7$

b) $-5x + 2 > 24$

c) $2m + 3 \leq -7$

d) $-4x - 2 > 10$

8. Write, then solve an inequality to show how many cars you would have to wash at \$5 a car to raise at least \$300.

9. Solve each inequality. Graph the solution.

a) $1 - k \leq 4 + k$

b) $2 + 3g < g - 5$

c) $4.5 - 2.5a > 6$

d) $4.7b - 9 \geq 11 - 1.3b$

e) $-6.4 + 3.6s \leq 1.8s + 1.7$

f) $-2.5v + 4.7 \geq -3.8v + 1.58$

10. The Student Council decides to raise money by organizing a dance. The cost of hiring the video-DJ is $1200 and the Student Council is charging $7.50 per ticket. How many tickets can be sold to make a profit of more than $1500?

a) Choose a variable and write an inequality to solve this problem.

b) Use the inequality to solve the problem.

c) Verify the solution and graph it on a number line.

11. Solve each inequality. Graph the solution.

a) $1 + \frac{3}{4}x > 17$

b) $-2 \leq -6 + \frac{1}{4}c$

c) $4 - \frac{2}{3}d \geq \frac{5}{6}d - 5$

d) $\frac{3}{5}f - \frac{1}{2} < 2 + f$

12. Solve each inequality. Show the steps in the solution. Verify the solution by substituting 3 different numbers in each inequality.

a) $4a - 5 \geq a + 2$

b) $15t - 17 \geq 21 - 4t$

c) $10.5z + 16 \leq 12.5z + 12$

d) $7 + \frac{1}{3}b \leq 2b + 22$

13. Jake takes a taxi to tour a city. He is charged $2.50, plus $1.20 per kilometre.
Jake has $12.00. How far can he travel?

a) Choose a variable and write an inequality for this problem.

b) Solve the inequality.
Explain the solution in words.

c) Verify the solution.

d) Graph the solution.

16. Solve each inequality. Graph the solution.

a) $3(0.4h + 5) > 4(0.2h + 7)$

b) $-2(3 - 1.5n) \leq 3(2 - n)$

c) $-4(2.4v - 1.4) \geq -2(0.8 + 1.2v)$

d) $-5(3.2 + 2.3z) < 2(-1.5z - 4.75)$

17. Solve each inequality.
Verify and graph the solution.

a) $\frac{3}{2}a + \frac{1}{2} < \frac{7}{3}a - \frac{3}{4}$

b) $\frac{3}{5}(5.2 - 3m) > -\frac{7}{10}(2m + 7.5)$

18. A business must choose a company to print a promotional brochure.
Company A charges \$900 plus \$0.50 per copy.
Company B charges \$1500 plus \$0.38 per copy.

a) How many brochures must be printed for the cost to be the same at both companies?

b) How many brochures must be printed for Company A to be less expensive?

c) How many brochures must be printed for Company B to be less expensive?

d) Explain the strategies you used to solve these problems.

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