

1. What is the solution to the inequality $-\frac{x}{12} + 13 < 15$?

A $x < -24$

C $x < -6$

B $x > -24$

D $x > -6$

2. What are all possible values of x if $\frac{2}{3}x + 3 > 9$?

A $x > 4$

C $x > 9$

B $x > 8$

D $x > 18$

3. What are all possible values of x if $10x + 5 \geq 25$?

A $x \geq 2$

C $x \geq 20$

B $x \geq 3$

D $x \geq 30$

4. Which of the given values is NOT a solution to the inequality?

$$\frac{a + 2}{6} < 0$$

A 6

C -3

B -5.2

D -1.25

5. What are all possible values of x if $\frac{x}{3} + 9 > 27$?

A $x > 6$

C $x > 72$

B $x > 54$

D $x > 108$

6. What is the solution to the inequality $-3x - 10 < 6$?

A $x > -\frac{16}{3}$

C $x > -\frac{9}{10}$

B $x < -\frac{16}{3}$

D $x < -\frac{9}{10}$

7. If $x + 4 \leq -11$, what is the solution for x ?

A $x \geq -7$

C $x \geq -15$

B $x \leq -7$

D $x \leq -15$

8. Benito earns \$250 per week giving surfing lessons plus \$75 for each surfboard he sells. If Benito wants to earn at least \$500 this week, which inequality could be solved to find s , the number of surfboards he needs to sell?

A $250s + 75 \leq 500$

C $250 + 75s \geq 500$

B $250 + 75s \leq 500$

D $250s + 75 \geq 500$

9. A neighborhood group has \$28,000 to spend on improvements to a park. They spend \$7,600 on playground equipment and \$115 on each tree. Which inequality represents the maximum number of trees, t , that the group can buy?

A $115t + 7,600 \leq 28,000$

C $115t - 7,600 \leq 28,000$

B $115t + 7,600 \geq 28,000$

D $115t - 7,600 \geq 28,000$

10. A cell phone company charges a service fee of \$10.00 each month plus \$0.03 for each minute used. A customer wants to spend no more than \$42.00 each month. Which inequality can be used to find the maximum number of minutes, m , that the customer can use each month?

A $0.03m + 10 \geq 42$

C $10m + 0.03 \geq 42$

B $0.03m + 10 \leq 42$

D $10m + 0.03 \leq 42$

11. What is the solution to the inequality $14y - 14 \geq 14$?

A $y \geq -1$

C $y \geq 1$

B $y \geq 0$

D $y \geq 2$

12. What are all possible values of x that satisfy the inequality $12 - 3x < 18$?

A $x < -2$

C $x < 10$

B $x > -2$

D $x > 10$

13. 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 $j > 16$

C $j > 31$

B $j < 16$

D $j < 31$

14. What are all possible values of x if $\frac{x}{4} + 7 > 23$?

A $x > 4$

C $x > 85$

B $x > 64$

D $x > 120$

15. What are all possible values of x if $\frac{x}{3} + 7 > 28$?

A $x > 7$

C $x > 77$

B $x > 105$

D $x > 63$

16. What are all possible values of x when $4 - \frac{x}{2} > 10$?

A $x < -28$

C $x < -12$

B $x > -28$

D $x > -12$

17. Kenneth has less than \$25 to spend on books and music CDs. Books are on sale for \$5 each, and music CDs are on sale for \$10 each. Kenneth will purchase exactly 1 music CD. The inequality below can be used to find b , the greatest number of books that Kenneth can purchase.

$$10 + 5b < 25$$

What is the greatest number of books that Kenneth can purchase?

A 2

C 4

B 3

D 5

18. Marie has a monthly cell phone plan that has a fixed charge of \$12 per month plus \$0.10 per text message. Marie wants to spend no more than \$40 per month on her cell phone. Which inequality represents the number of text messages, t , that Marie can use in a month?

A $t \leq 250$

C $t \leq 400$

B $t \leq 280$

D $t \leq 520$

19. If $7 - 2x \geq 15$, what is the solution for x ?

A $x \geq 10$

C $x \leq 10$

B $x \geq -4$

D $x \leq -4$

20. Lori needs more than 250 signatures to run for the position of class president for her middle school. She already has 75 signatures and believes that she can get 25 more signatures each day. She wants to figure out how many days, d , she should collect the signatures she needs. Which inequality and solution for d correctly represent Lori's situation?

- A** $75d + 25 > 250$ and $d > 3$ **C** $75 + 25d > 250$ and $d > 7$
B $75 + 25d < 250$ and $d < 7$ **D** $75 + 25d > 250$ and $d > 13$

21. Which values of z make the inequality $3z - 1 \leq -7$ true?

- A** $z \leq -\frac{8}{3}$ **C** $z \leq -2$
B $z \geq -\frac{8}{3}$ **D** $z \geq -2$

22. What are all the values of x that make the inequality $8 - 3x < 20$ true?

- A** $x > -4$ **C** $x < -4$
B $x > 15$ **D** $x < 15$

23. Marisa saved less than \$3000 to take a bike trip from Florida to California. She estimated her expenses to be \$40 per day. The cost of a ticket to fly back is \$240. The inequality below can be used to find the maximum number of days (d) for which Marisa can pay the expenses on the bike trip.

$$40d + 240 < 3000$$

Which inequality expresses the maximum number of days Marisa can pay the expenses for her bike trip?

- A** $d < 40$ **C** $d < 75$
B $d < 69$ **D** $d < 81$

24. James has \$360 in his savings account. If he decides to save \$90 every month, which of these best describes how many months it will take for him to have more than \$810 in his savings account?

- A** less than 5 months **C** more than 5 months
B less than 9 months **D** more than 9 months