

Name \_\_\_\_\_

Date \_\_\_\_\_

### Inequalities Review Packet

Solve the inequality and graph the solution set.

1.  $\frac{x}{3} - 1 \geq -3$



2.  $3p + 2 < -10$



3.  $2 + \frac{x}{-5} \geq 4$



4.  $-x - 12 < -50$



5.  $-2(3x - 1) \geq 38$



**Directions for #6-9: Choose a variable and write a let statement. Write and solve an inequality to answer the question. Show your work. Write your answer in a complete sentence.**

6. Michael needs to buy 6 work shirts that are each the same price. After he uses a \$30 gift certificate, he can spend no more than \$90. What is the maximum amount that each shirt can cost?

7. You have \$20 for taxi fare. The ride cost \$5.00 plus \$2.50 per mile. What is the maximum number of miles you can ride for \$20.00?

8. Daniel has \$25 to spend at the fair. If the admission to the fair is \$4 and the rides cost \$1.50, what is the greatest number of rides Daniel can go on?

9. The seventh grade class is putting on a variety show to raise money. It cost \$700 to rent the banquet hall that they are going to use. If they charge \$15 for each ticket, how many tickets do they need to sell in order to raise at least \$1000?

**Write each statement as an inequality.**

10. The product of a number and  $-5$  is at least  $35$ . \_\_\_\_\_
11. A number divided by  $-3$  is no more than  $12$ . \_\_\_\_\_
12. The sum of  $15$  and a number is at most  $1$ . \_\_\_\_\_
13. You must be at least  $36$  inches tall to ride the roller coaster. \_\_\_\_\_  
Let  $h$  = height of individuals allowed on the ride
14. Children under the age of  $17$  are not able to attend  
R rated movies without a parent or guardian. \_\_\_\_\_  
Let  $a$  = age of child not allowed to attend movie
15. Infants and children are required to be in rear-facing  
car seats until they weigh at least  $20$  lbs. \_\_\_\_\_  
Let  $w$  = weight of child no longer in rear-facing seat



**Directions: Choose the letter of the correct answer.**

16. You earn \$8.50 per hour at your summer job. You want to buy a smartphone that costs \$340. Which inequality can be used to find the number of hours you need to work in order to buy the smart phone.

a)  $8.50h \geq 340$

c)  $8.50h \leq 340$

b)  $340h \leq 8.50$

d)  $\frac{8.50}{340} \leq h$

17. You have a gift card worth \$90. You want to buy several movies that cost \$12 each. Which inequality can be used to find the number of movies you can buy with the \$90 gift card?

a)  $12g \leq 90$

c)  $12g \geq 90$

b)  $\frac{12}{90} \geq g$

d)  $\frac{g}{12} \leq 90$

18. You have \$18 to buy peppers. Peppers cost \$1.50 each. Which inequality can be used to find how many \$1.50 peppers can be purchased for \$18.00?

a)  $1.50x \geq 18.00$

c)  $\frac{x}{1.50} \geq 18.00x$

b)  $1.50x \leq 18.00$

d)  $1.50 \leq 18.00x$

19. Every month, \$45 is withdrawn from James' savings account to pay for his gym membership. Which inequality can be used to find the number of months that James can pay for his gym membership, if he has \$360 saved?

a)  $360m \geq 45$

c)  $\frac{m}{45} \geq 360$

b)  $\frac{45}{360} \geq m$

d)  $45m \leq 360$