

Name: \_\_\_\_\_

Lowest Acceptable Grade: \_\_\_\_\_

1. Can you clear fractions in an equation by multiplying each side of the equation by a common denominator?  
2.

Solve

3.  $-5(11)$                       4.  $\frac{5}{7} - \frac{5}{3}$                       5. What is the square root of 289?  
6. Food is \$25, Tax is 6%, Tip is 15%; What is the total      7. Convert  $\frac{4}{5}$  to percentage  
8. Simplify the square root of  $300x$                       9.  $\frac{\sqrt{16}}{5}$  —Is it rational or irrational?

10. A scale drawing of a basketball court has a scale of 1 inch to 9 feet. A basketball court is 94 feet by 50 feet. Find the dimensions of the court in the drawing.

11. A scale drawing of a basketball court has a scale of 1 inch to 9 feet. The free throw line is 15 feet from the backboard. How far is the free throw line from the backboard in the drawing?

12. A wetland is a region where water is usually present near or on the soil. The states in the table to the right had the greatest acreage of wetlands in the United States in the 1980's. The table shows the surface area of wetlands in these states in the 1780's and in the 1980's. In which state was the percent of change from the 1780's to the 1980's the least?

| Area of Wetlands<br>(millions of acres) |        |        |
|---|--------|--------|
| State                                   | 1780's | 1980's |
| Alaska                                  | 170.2  | 170.0  |
| Florida                                 | 20.3   | 11.0   |
| Louisiana                               | 16.2   | 8.8    |
| Minnesota                               | 15.1   | 8.7    |

13. The greatest?

14. For the four states combined, by about what percent did the area of wetlands change from the 1780's to the 1980's?

15. An adult cat has a body mass of 3500 grams. It can eat up to 8% of its body mass in food each day. How many grams of food can the cat eat each day?

16. A riding instructor takes students on mountain trails. **The instructor wants to avoid steep trails.** On the steepest part of Trail A, the path rises 15 feet over a horizontal distance of 50 feet. On the steepest part of trail B, the path rises 30 feet over a horizontal distance of 75 feet. Which trail should the instructor take?

17. A television screen is a rectangle, and its size is indicated by the length of a diagonal. A 42-inch television screen is about 21 inches high. How wide is the screen to the nearest inch?

## Graph the following

18.  $y = -1$                       19. A line with points  $(-1,0)$  and  $(0,-5)$                       20.  $y \geq \frac{2}{3}x - 5$

Extra Credit—Find the Distance between the following points:

$(1.5,4)$  and  $(3,6)$