Chapter 8 Test

Name: _____
Date: _____

SHOW ALL YOUR WORK TO RECEIVE CREDIT. BOX OR CIRCLE YOUR FINAL ANSWERS.

1) Solve the equation for the indicated variable. $\frac{t-8}{5}+2=\frac{2}{5}-\frac{t}{3}$ for t

2) Solve the inequality. Graph the solution and write the solution in interval form. $-2(x-3)\geq 16$

3) Solve the equation. $|3x-2|=5$

4) Solve the inequality. Graph the solution and write the solution in interval form. $|2x-3|<9$

5) Solve the inequality. Graph the solution and write the solution in interval form. $|2x-5|\geq 25$

For problems 6-13, FACTOR EACH EXPRESSION COMPLETELY.

6) $24y+10xy-6x^2y$

7) $5x-5y+ax-ay$

8) p^2-49

9) $5x^4-5$

10) t^3+625

11) $20x^2-7x-6$

12) $6y^{2n}+7y^n-3$

13) $x^2+10x+25-16m^2$

14) Perform the indicated operations and simplify all answers. $\frac{w^2+2w+1}{w}\bullet\frac{w^2-2w}{w^2-1}$

15) Subtract and simplify if possible. $\frac{x+2}{x+5}-\frac{x-3}{x+7}$

16) Simplify the complex fraction, writing the solution without negative integers. $\dfrac{\frac{5t^4}{9x}}{\frac{2t}{18x}}$

17) For the points P(-5,4) and Q(8,-6), find the slope of the line passing through the points.

18) For the same points as problem 17 → points P(-5,4) and Q(8,-6), find the equation of the line written in general form.

19) If f(x) = 5x + 3 , find f(-2) .

20) A) Express "P varies inversely with V" as a formula. B) If V = 2 when P = 6, find P when V = 12.