Elementary Algebra Final Preparation

1. $(-3)^3$
2. Simplify -3 + 7 -9 +2
3. True or false
   -2 > -3
   0 < 7
   -1.5 > -1.55
4. (-2)(-3)(-4)(6)
5. 9 – 3{2 + [-5 – 2(3 – 6)]}
6. What operation is performed last in 5?
7. Evaluate $x^3 + 2y^2$ for x = 2, y = -3
8. For $x^3 - 3x^4 + 2x^2 - 3$
   What is the degree?
   What is the coefficient of x^3

9 Give an example of
   Monomial
   Binomial
   Trinomial

10. $x^2 \cdot x^3$
11. $(x^2)^3$
12. $\dfrac{x^2}{x^3}$
14. $(-2x^2)^3$
15. $(2x^3)(-3x^2)$
16. (x + 2) – (2x – 3)
17. $(x+3)^2$
18. $(3x^2 - 2x + 3) \div (x - 3)$
19. 3a – 2(a – 3) + 3
20. Solve
    3x -2 = 4 for x
    6x + 7 = 2x – 5
    6(x – 2) – 3 = x + 5
    $\frac{3}{4}x = -2$
21. Solve and graph
    $3x - 7 \geq 2$
    $2 - 3x \geq x - 4$
22. Solve
    $$\frac{x}{3} = \frac{2}{7}$$

23. Give examples of

Integer
Real Number
Whole Number
Natural number

24. Factor the following

$x^2 - 4x - 12$

$x^2 - 9$

$6x^2 + x - 12$

25. Evaluate

$\frac{2}{3} + \frac{3}{4}$

$\frac{2}{3} \cdot \frac{3}{4}$

$\frac{2}{3} - \frac{3}{4}$

$\frac{2}{3} \div \frac{3}{4}$

26. (3x – 2)(2x – 3)

27. $(x^2 - 2x - 3) - (2x^2 - 4x + 5)$

28. Define the property represented

$x + 2 = 2 + x$

$3x - 9 = 3(x - 3)$

29. $\frac{3x^4 y^5 z^2}{6x^2 y^2 z^2}$

30. $\frac{xy}{3x} \div \frac{2x}{y}$

31. Solve $m = \frac{y - y_1}{x - x_1}$ *for y*