FINAL EXAM REVIEW

ANSWER KEY

I. Identify the numeration system by matching the correct civilization with the number.

1.	**CDXII**	**3**	**Babylonian**
2.	**βΩθ**	**1**	**Roman**
3.	**<ττ**	4	**Egyptian**
4.	**∩∩II**	**2**	**Greek**
5.	**2,345**	**5**	**Hindu Arabic**

II. Classify the number with appropriate name(s). Choose from natural, whole, integer, rational, irrational and real numbers.

6. 0.235 Q, ℜ

7. 18 ⅔ Q, ℜ

8. – 512 Z, Q, ℜ

9. √ 13 Q', ℜ

10. 0 W, Z, Q, ℜ

11. 7854 N, W, Z, Q, ℜ

III. Compare the following using the symbols <, > or = .

12. 8/11 < 7/9

13. -23 < -18

14. .83 > .083

15. 56.08 = 56.080

16. 0 > - 45

17. 23 1/4 < 23.3

IV. Perform the indicated operations:

18. 23.067 + 206.9 **229.967**

19. 14 – (-14) **28**

20. -9x – 2x **-11X**

21. Change ⅜ to a decimal. **0.375**

22. (-6.5)(8.2) **-53.3**

23. Find the area of a rectangle with sides measuring 24 cm and 6.2 cm. **148.8 cm^2**

24. 14 + -32 **-18**

25. 22x + -12x **10x**

26. A rectangular field has a length of 15cm and a width of 12 cm. Find the perimeter. **54 cm**

27. 22 – 3.056 **18.944**

28. 7(3 – x) **21 – 7x**

29. -37 – (-23) **-14**

30. Find the circumference of a circle whose diameter is 42 cm. **131.88 cm**

31. 8 ¾ + 11⅓ **20 1/12**

32. What percent of 180 is 15? **8.3%**

33. 16 – 14 ⅔ **1⅓**

34. -12 + 42 **30**

35. 13⅗ - 10 ⅔ **2 11/15**

36. $(-5)^3$ **-125**

37. Find 15% of 6,250. Round to the nearest hundredth. **937.5**

38. 4/5 **x** 3¾ **3**

39. (3)(-7)(-6) 126

40. ⅔ ÷ 6⅜ 16/153

41. In the general election 12,000 people registered to vote, but only 4,500 voted. What percent of the registered voters is this?

37.5%

V. Combinations

42. $163 - 4(9 - 6)^2$ **127**

43. $2^3 \div 4 + 5 \times 3^2 + 21 \div 3$ **54**

44. $\frac{-6 + 24 \div (-2)}{6 + 4(-3)}$ **3**

45. **Solve for n**: $\frac{45 \text{ liters}}{10 \text{ hours}} = \frac{n \text{ liters}}{25 \text{hours}}$

112.5

46. If 4 cm on a map represents 160 miles, what distance does 20 cm represent?

800 miles

47. Simplify: $-5(x - 2y) - 5(4y - 2x)$

5x – 10y

48. Simplify: $7y^2 - y + 10y^2 - 5y$

$17y^2 - 6y$

49. **Solve for x**: $3x - 20 = -40$

6⅔

50. **Solve for y**: $10 - 2(y + 4) = 6$

y = -2

50. **Estimate** a value for $\sqrt{37}$ **≈ 6.1**