

FINAL EXAM REVIEW

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

- | | |
|----------|--------------------|
| 1. CDXII | _____ Babylonian |
| 2. βΩθ | _____ Roman |
| 3. <ΤΤΤ | _____ Egyptian |
| 4. ΠΠΠ | _____ Greek |
| 5. 2,345 | _____ Hindu Arabic |

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

- 6. 0.235
- 7. $18\frac{2}{3}$
- 8. - 512
- 9. $\sqrt{13}$
- 10. 0
- 11. 7854

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

- 12. $\frac{8}{11}$ $\frac{7}{9}$
- 13. -23 -18
- 14. .83083
- 15. 56.08 56.080
- 16. 0 - 45
- 17. $23\frac{1}{4}$ 23.3

IV. Perform the indicated operations:

18. $23.067 + 206.9$

19. $14 - (-14)$

20. $-9x - 2x$

21. Change $\frac{3}{8}$ to a decimal.

22. $(-6.5)(8.2)$

23. Find the area of a rectangle with sides measuring 24 cm and 6.2 cm.

24. $14 + -32$

25. $22x + -12x$

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

27. $22 - 3.056$

28. $7(3 - x)$

29. $-37 - (-23)$

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

31. $8\frac{3}{4} + 11\frac{1}{3}$

32. What percent of 180 is 15?

33. $16 - 14\frac{2}{3}$

34. $-12 + 42$

35. $13\frac{3}{5} - 10\frac{2}{3}$

36. $(-5)^3$

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

38. $\frac{4}{5} \times 3\frac{3}{4}$

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

40. $\frac{2}{3} \div 6\frac{3}{8}$

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

V. Combinations

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

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

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

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

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

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

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

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

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

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