Test 1 Review

Name _____

Part 1: Simplify.

1. $\sqrt{150}$

2. $\sqrt{27x^2}$

3. $\sqrt{80x^5}$

4. $\sqrt{72a^6}$

Part 2: Estimate.

5. A.) $\sqrt{5}$ is between _____ and _____.

   B.) $\sqrt{135}$ is between _____ and _____.

Part 3: Insert the correct symbol.

6. 0.63 _____ 0.613

7. $\frac{1}{4}$ _____ $\frac{1}{6}$

8. $\frac{1}{3}$ _____ $\frac{2}{3}$ _____ $\frac{4}{6}$

9. -2,567 _____ -2,390

10. 8,329 _____ 8,062

11. 0.45 _____ 0.15

12. $\frac{2}{5}$ _____ $\frac{4}{10}$

13. $\sqrt{61}$ _____ $\frac{22}{3}$

Part 4: Order from least to greatest.

14. $\frac{3}{5}, \frac{1}{5}, \frac{6}{5}$

15. 3.12, 4, $3\frac{2}{9}$

16. -4,000 -4,700 -4,007 -4,070

17. $\frac{3}{7}, \frac{3}{8}, \frac{3}{5}$

Part 5: Find the least common multiple (LCM).

18. $54x^2y^3$ $30xy^4$

19. $12x^3y^2z$ $20x^3yz^3$

Part 6: Find the greatest common factor (GCF).

20. $7x^2y^2z^4$ $35x^2y^4$

21. $21x^2yz^3$ $6x^4y^2z$

Part 7 Real Numbers:

22. What is the decimal expansion of the following fraction? $\frac{1}{3}$

23. Find the fraction equivalent of each of the following numbers in simplest form.

- $0.\overline{7} =$
- $0.23 =$

24. What is the decimal expansion of the following fraction? $\frac{1}{5}$

25. Classify the real numbers below as rational or irrational numbers.

- $\frac{\pi}{2}$
- $\sqrt{8}$
- $\sqrt{4}$
- $\sqrt{90}$
- $\frac{2}{3}$
- π
- $\frac{1}{4}$

Part 8 Order of Operations:

26. $5 \cdot \sqrt{16} - 15 \div 3$

27. $8 \cdot 42 + 7 - (8 + 11)$

28. $27 - 4 \cdot 6 + 32$

29. $15 \cdot (1 + 2)$

30. $5 - (6 - (6 + 3 - 5))$

31. $h - (j - k)$; use $h = 6$, $j = 1$, and $k = 1$

32. $4yz \cdot 4 - z$; use $y = 5$, and $z = 5$

33. $nm - m + m$; use $m = 3$, and $n = 4$

34. $a + c + 5$; use $a = 5$, and $c = 6$