Module 9 Quiz Review
Complete all work on a separate sheet of paper.
No calculators!!!

Answer Key

1. Squares you should know by heart:	2. Cubes you should know by heart:	3. Square roots you should know by heart:	4. Cubic roots you should know by heart:
$0^2 = 0$	$0^3 = 0$	$\sqrt{0} = 0$	$\sqrt[3]{0} = 0$
$1^2 = 1$	$1^3 = 1$	$\sqrt{1} = 1$	$\sqrt[3]{1} = 1$
$2^2 = 4$	$2^3 = 8$	$\sqrt{4} = 2$	$\sqrt[3]{8} = 2$
$3^2 = 9$	$4^3 = 64$	$\sqrt{9} = 3$	$\sqrt[3]{64} = 4$
$4^2 = 16$	$5^3 = 125$	$\sqrt{16} = 4$	$\sqrt[3]{125} = 5$
$5^2 = 25$	$6^3 = 216$	$\sqrt{25} = 5$	$\sqrt[3]{216} = 6$
$6^2 = 36$	$7^3 = 343$	$\sqrt{36} = 6$	$\sqrt[3]{1000} = 10$
$7^2 = 49$	$8^3 = 512$	$\sqrt{49} = 7$	
$8^2 = 64$	$9^3 = 729$	$\sqrt{64} = 8$	
$9^2 = 81$	$10^3 = 1000$	$\sqrt{81} = 9$	
$10^2 = 100$		$\sqrt{100} = 10$	
$11^2 = 121$		$\sqrt{121} = 11$	
$12^2 = 144$		$\sqrt{144} = 12$	
$13^2 = 169$		$\sqrt{169} = 13$	

Write the fraction as a decimal

5. $\frac{5}{9}$ $.\overline{5}$

6. $1\frac{3}{8}$ 1.375

Write the decimal as a fraction in simplest form.

7. 0.25 $\frac{1}{4}$

8. 1.287 $1\frac{287}{1000}$

9. $1.333333 \ldots$ $1\frac{1}{3}$

10. $0.\overline{45}$ $5/11$

11. 2.85 $2\frac{17}{20}$

Simplify.

12. $\sqrt{\frac{49}{4}}$ $\frac{7}{2}$

13. $\sqrt{\frac{400}{36}}$ $\frac{20}{6}$

Estimate the square roots to the nearest hundredth.

14. $\sqrt{17} \approx$ ~~4.035~~ 4.15

15. $\sqrt{57} \approx 5.75$

Solve for x.

16. $x^2 = 64$ ± 8

17. $x^2 = 144$ ± 12

18. $x^3 = 125$ $x = 5$

Identify the set of numbers that each number belongs to.
   19. 0 real, rational, whole, integer
   20. $-\frac{1}{5}$ real, rational
   21. $\sqrt{2}$ real, irrational
   22. -1 real, rational, integer.
   23. The number of books on a shelf real, rational, integer whole ← best answer.
   24. The outdoor temperature. real irrational, rational, integer, whole.
                                      best answer.

True or false.
   25. All rational numbers are positive false (integers can be negative)
   26. All integers are whole numbers false (but all whole numbers are integers.
   27. All irrational numbers are real numbers true
   28. If you add two rational numbers, the result will be rational true
   29. If you multiply two irrational numbers, the result will be irrational false; sometimes it will be irrational.
   30. If you subtract two whole numbers, you will always get another whole number
   false; sometimes you will get an integer that is not whole.   Sometimes rational.

Order the sets from least to greatest.
   31. $2.15, 2\frac{1}{3}, \sqrt{3}, \pi - 1$
   32. $\sqrt{4}, \sqrt{2}, \sqrt{36}, \sqrt{1}$

31. $\sqrt{3}, \pi-1, 2.15, 2\frac{1}{3}$

example:
10-20 = -10 $\pi \cdot \frac{1}{\pi} = 1$

32. $\sqrt{1}, \sqrt{2}, \sqrt{4}, \sqrt{36}$