

Name: \_\_\_\_\_

**Practice BIG QUIZ: Fractions, Decimals, %, Square Roots, Cube Roots, Rational, Irrational, & Scientific Notation**

**1. Fill in the table at the right. Make sure your fractions are reduced.**

<u>Percents</u>	<u>Decimals</u>	<u>Fractions</u>
	0.62	
		$\frac{4}{9}$
	3.24	
17%		
		$\frac{4}{5}$
8%		

**For 2–6, find the TWO square roots for each.**

2. 196

3. 289

4. 169

5. 121

6. 400

**For 7–11, find the square root to the nearest TENTH for each.**

7.  $\sqrt{67}$

8.  $\sqrt{8}$

9.  $\sqrt{105}$

10.  $\sqrt{39}$

11.  $\sqrt{23}$

**For 12–16, find the cube root for each.**

12. 125

13. 27

14. 216

15. 8

16. 512

For 17–24, evaluate each completely.

17.  $\sqrt[3]{512}$

18.  $\sqrt{\frac{49}{9}}$

19.  $\sqrt[3]{\frac{27}{64}}$

20.  $\sqrt{\frac{144}{16}}$

21.  $\pm\sqrt{\frac{36}{81}}$

22.  $\sqrt{16} + \sqrt{30 - 5}$

23.  $\sqrt{16 + 3 \cdot 3}$

24.  $\sqrt{8 - 2 \cdot 2 + 12 \div 4 + 2}$

For 25–28, determine whether or not each one is rational or irrational. Write "R" for Rational or write "I" for Irrational.

25. 0.11223344...

26.  $\sqrt{40}$

27. 0.20220222...

28.  $\sqrt{64}$

For 29–32, identify if each is in scientific notation. Write "Y" for yes or "N" for no.

29.  $2.64 + 10^7$

30.  $5.412 \cdot 10^{19}$

31.  $9.24 \cdot 100^{10}$

32.  $2.4 \cdot 10^{-978}$

For 33–35, write each problem in scientific notation.

33. 0.000008516

34. 84,600,000,000

35. 0.0005814