

Name: _____

Date: _____

Section: _____

Unit 1: Number Systems

Pre-Test

*I can change rational numbers to fractions, decimals, and percents.

Change rational numbers to equivalent fractions

1) .3 _____ 2) -.4 _____ 3) .25 _____ 4) -2.75 _____

5) 70% _____ 6) -8% _____ 7) 110% _____ 8) -4.5% _____

Change rational numbers to equivalent decimals

9) -20% _____ 10) 600% _____ 11) -3% _____ 12) .002% _____

13) $\frac{3}{4}$ _____ 14) $-\frac{4}{5}$ _____ 15) $8\frac{3}{10}$ _____ 16) $-\frac{11}{20}$ _____

Change rational numbers to equivalent percents

17) .24 _____ 18) -.7 _____ 19) 3.6 _____ 20) -20 _____

21) $\frac{1}{4}$ _____ 22) $-\frac{3}{5}$ _____ 23) $\frac{9}{10}$ _____ 24) $-\frac{7}{20}$ _____

*I can recognize the difference between rational & irrational numbers

Tell whether the number is rational or irrational by writing either rational or irrational

25) $\frac{2}{3}$

26) 7

27) 2.8

28) $\frac{32}{5}$

29) $48.\overline{3}$

30) 1.234456778...

31) $\sqrt{2}$

32) $\sqrt{100}$

***I can compare and order rational and irrational numbers**

Fill in the blank with a < or > to make a true statement

33) -2 _____ -5

34) $\frac{1}{2}$ _____ $\frac{2}{5}$

35) $\sqrt{4}$ _____ 3

36) 10 _____ $\sqrt{102}$

37) $\bar{3}$ _____ $.07$

38) $\frac{2}{3}$ _____ $.6$

Order the numbers from least to greatest

39) 5 , $5.\bar{7}$, $\sqrt{22}$, 4.98 , $5\frac{1}{10}$, $\sqrt{28}$, 4.979

40) $\sqrt{81}$, 9.2 , 9.0001 , $9\frac{1}{9}$, 9.9001 , $\sqrt{91}$, $\sqrt{100}$

***I can estimate the location of rational and irrational numbers on a number line**

Graph the numbers on the number line

41) $\sqrt{2}$, 1 , $\sqrt{5}$, 2.5 , $\frac{1}{2}$, $\frac{1}{4}$

42) $\sqrt{64}$, 8.1 , $\sqrt{56}$, $8\frac{1}{2}$, 7.9 , 7.09

***I can estimate answers to operations with irrational numbers**

Estimate the answer by using your knowledge of irrational numbers

43) $2 + \sqrt{38}$ _____ 44) $\sqrt{22} - 1$ _____ 45) $10 \cdot \pi$ _____

46) $\frac{\sqrt{60}}{2}$ _____

47) $-3 \cdot \sqrt{50}$ _____