

Name: _____

Date: Jan 14

Hour: 6th

Unit 4B Day 18: Types of Numbers Practice Day (Quiz Tomorrow)

Focus Question: Am I ready for this part of my test?

A. Rational Equivalents

Give the BEST rational equivalent to the decimal. (Means turn the decimal into a fraction.)

C1. $3.\overline{2}$ Repeating
 $\frac{22}{9}$ $\frac{21+2}{9}$ $\frac{29}{9}$ A

C2. $-6.\overline{12}$ Repeating
 $-\frac{612}{99}$ $-\frac{12}{3}$ $-\frac{4}{33}$ B

3. $0.\overline{8}$ Rep.
 $\frac{8}{9}$ A

4. -5.4 Terminating
 $-\frac{54}{10}$ $-\frac{5 \cdot 2}{5 \cdot 2}$ $-\frac{52}{5}$ B

5. $-2.\overline{90}$ Repeating
 $-\frac{290}{99}$ $-\frac{29}{11}$ $-\frac{22}{11} + \frac{10}{11} = -\frac{32}{11}$ A

6. 4.65 Terminating
 $\frac{465}{100}$ $\frac{413}{20}$ $\frac{80}{20} + \frac{13}{20} = \frac{93}{20}$ A

B. Rational or Irrational

7. Define Rational Number

* can be a ratio of 2 integers

8. Define Irrational Number

* can NOT be a ratio of 2 integers
($\sqrt{\quad}$ or π)

Tell whether each number below is rational or irrational.

9. $8.\overline{12}$

R

10. $\sqrt{42}$

I

11. $\frac{13}{8}$

R

12. $\sqrt{169} = 13$

R

13. -0.7

R

14. 5

R

15. $\frac{\sqrt{15}}{2}$

I

C. Comparing numbers

Tell whether the pair of numbers is rational or irrational. Then tell which number in each pair is greater. Explain.

16. 0.5 or $0.\overline{5}$

These numbers are rational and $0.\overline{5}$ is greater because it has more 5's behind the 1st one.

17. $\sqrt{20} + \sqrt{20}$ or $\sqrt{40}$

These numbers are irrational and $\sqrt{20} + \sqrt{20}$ is greater because

$\sqrt{20} + \sqrt{20} \approx 8.8$ and $\sqrt{40} \approx 6.2$ and $8.8 > 6.2$

18. $\frac{15}{7}$ or $\sqrt{9}$

These numbers are rational and $\sqrt{9}$ is greater because $\sqrt{9} = 3$

and $\frac{15}{7} \approx 2.1$ and $3 > 2.1$

$7 \overline{) 15.0}$
 $\underline{14}$
 10
 $\underline{7}$
 3

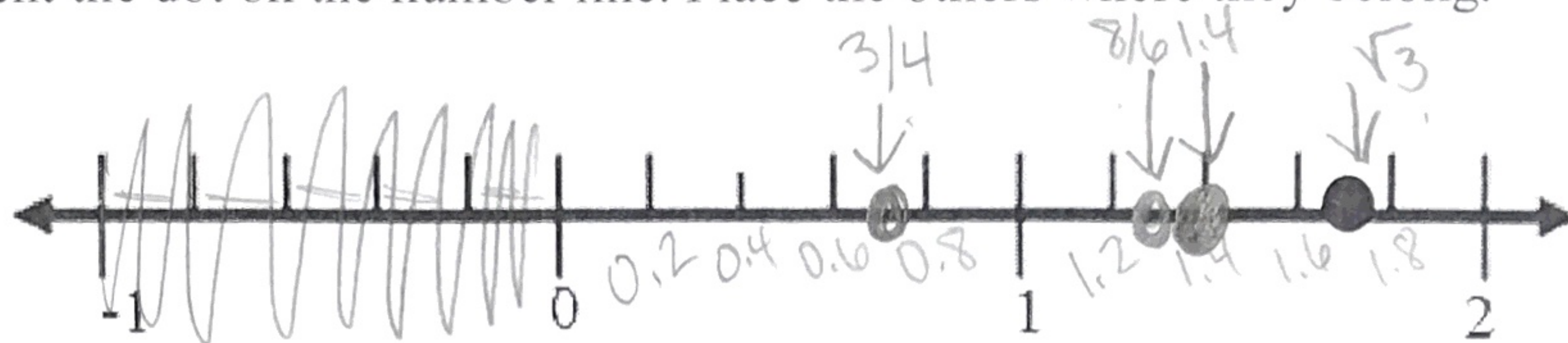
$$\frac{1}{10} = 0.1$$

$$\frac{1}{5} = 0.2$$

$$\frac{1}{4} = 0.25$$

D. On the number line

Tell which number best represent the dot on the number line. Place the others where they belong.

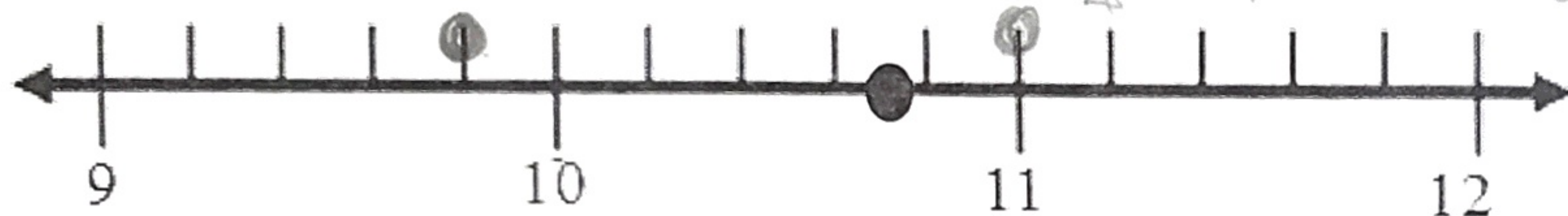


19.

A. $\frac{3}{4} = 0.75$	B. $\sqrt{3}$
C. $\frac{8}{6}$	D. 1.4

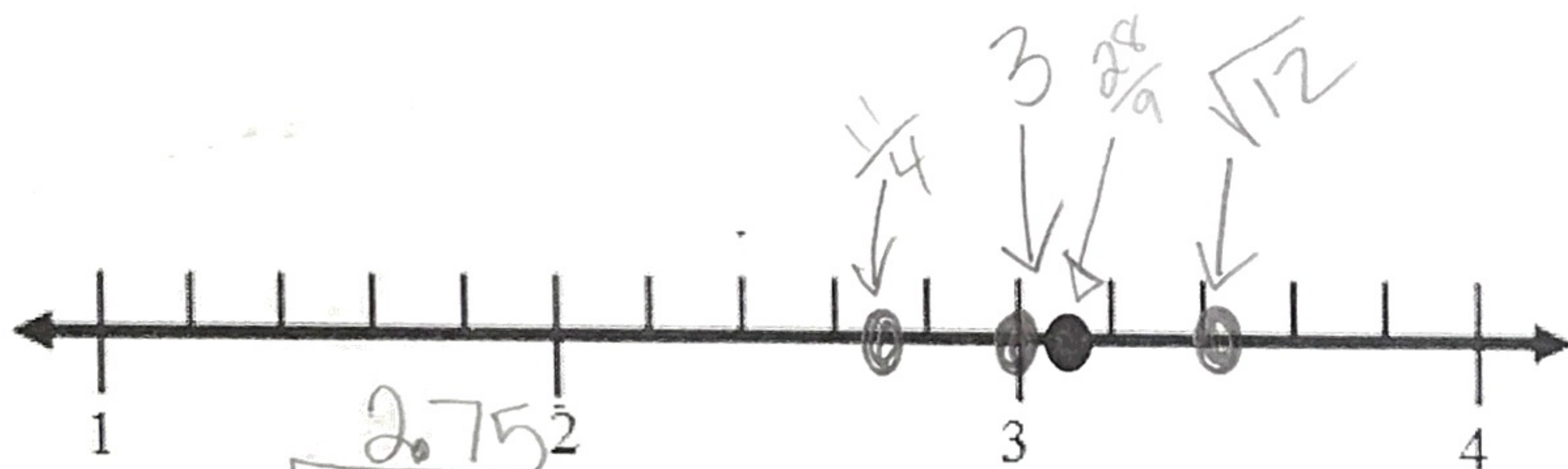
$$\frac{8}{6} = \frac{2}{3} = 1\frac{1}{3} = 1.\bar{3}$$

← this will cost you points



20.

A. $\frac{43}{4}$	B. $\sqrt{104}$
C. $\frac{57}{5}$	D. 10.35



21.

$$\begin{array}{r} 2.75 \\ 4 \overline{) 11.00} \\ \underline{8} \\ 30 \\ \underline{28} \\ 20 \\ \underline{20} \\ 0 \end{array}$$

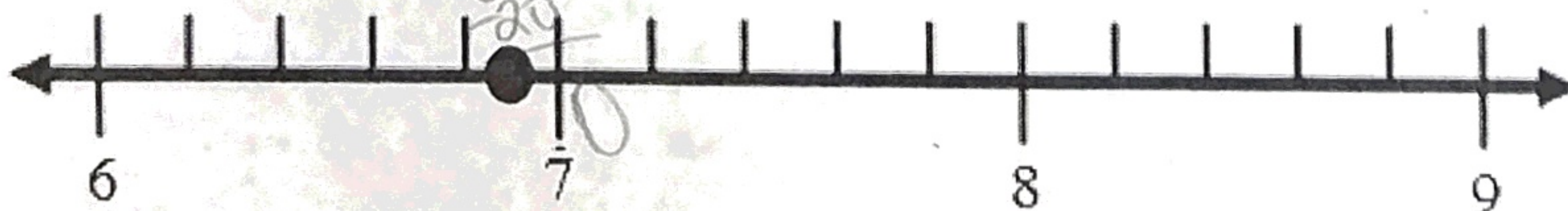
A. $\frac{11}{4}$	B. $\sqrt{12}$
C. $\frac{28}{9}$	D. 3

$$\sqrt{9} + 3 = 3 + 3 = 6$$

$$\sqrt{12} + 4 = 2\sqrt{3} + 4$$

$$\sqrt{16} = 4$$

$$3.4$$



22.

A. $6\frac{4}{7}$	B. $\sqrt{47}$
C. $\frac{56}{8}$	D. 6.8