Math 7 Practice Test: Rational Numbers

Name:

Date:

- 1. Define and give an example of a *reciprocal*.
- 2. Define *fraction*.
- 3. Define *rational numbers*.
- 4. Identify <u>two different</u> real world example in which opposite quantities combine to make 0.

5. Graph the following numbers on the number line. Label each point.

-1.7, 0.019, 2, $\frac{-2}{3}$, $\frac{3}{4}$, $\frac{-3}{2}$,

6. In which set are the numbers all between 0.7 and 1.86?

Α.	0.45, 2, 1.84
В.	0.699, 1.206, 1.85
C.	0.72, 1.37, 1.88
D.	0.78, 1.04, 1.854

7. Which set of numbers is in order from least to greatest?

А.	$-0.23, \ \frac{-1}{3}, \ -0.3, \ \frac{-2}{7}$
В.	$\frac{-1}{3}$, -0.3, $\frac{-2}{7}$, -0.23
С	$-0.23, \ \frac{-2}{7}, \ \frac{-1}{3}, \ -0.3$
D.	$\frac{-2}{7}$, $\frac{-1}{3}$, -0.3, -0.23,

8. Draw a model to solve $\frac{2}{3} - \frac{1}{2} =$ 9. Draw a model to solve $\frac{2}{3} \div \frac{1}{6} =$

10. Write the algorithm for DIVIDING decimals.

11. Compare the algorithm for subtracting fractions to the algorithm for subtracting decimals.

Simpl	lify problems 12 – 19. Show your work.		
12.	15.1234 + (-6) + (-4.07) =	13.	39 - 1.8 =
14.	-9.8(0.027) =	15.	.008)-5.2
			/

$$16. \left(-3\frac{3}{4}\right) + \left(-2\frac{7}{8}\right) = 17. \left(-\frac{3}{4}\right) \left(-\frac{10}{21}\right) =$$

$$18. \left(2\frac{1}{4}\right) \div \left(-\frac{3}{16}\right) =$$

$$19. \left(3\frac{1}{3}\right) \left(-4\frac{1}{5}\right) =$$

20.(SBAC) Identify the number(s) that makes each statement true. You may select more than one number for each statement. $-3.2 + \square = a$ negative number $\bigcirc -5.2 \bigcirc 4.9$ $\square - 2\frac{3}{5} = a$ positive number $\bigcirc \frac{16}{5} \bigcirc -\frac{7}{4}$ $\square - 3 = zero$ $\bigcirc -3 \bigcirc 3$ $4.23 - \square = a$ negative number $\bigcirc -4.75 \bigcirc -1.78$

21. Kevin's regular rate of pay is \$4 per hour. When he works overtime, he earns $1\frac{1}{2}$ times as much per hour. How much will Kevin earn for $5\frac{1}{2}$ hours of overtime work?

22. One pattern for a shirt requires $1\frac{1}{4}$ yards of fabric. How many of these shirts can be made with $12\frac{1}{2}$ yards of fabric? Explain your thinking.



23. Sam went to the store and bought a chair for \$17.95, a rake for \$13.59, a spade for \$14.84, and two bags of fertilizer for \$3.29 each. What is the total amount of his bill?

How much change would he get from a \$100 bill?

- 24. The wing span of an albatross grew from $1\frac{1}{2}$ meter to $3\frac{3}{5}$ meters in seven months. If the growth was spread equally over the seven months, how much did the wing span increase per month?
- 25. Jeffrey plans to spend between \$1.75 and \$3.25 on lunch each day of the school year. There are 180 days in the school year. Which is the **best** ESTIMATE of the amount of money Jeffrey will spend on lunches for the entire school year?
 - A. \$100 to \$300
 - B. \$200 to \$400
 - C. \$400 to \$600
 - D. \$600 to \$800

26. Convert $.\overline{3}$ to a **simplified** fraction.

A. $\frac{3}{10}$ B. $\frac{3}{9}$ C. $\frac{3}{5}$ D. $\frac{1}{3}$

27. Convert
$$\frac{5}{12}$$
 to a decimal. Show your work.

Long Term Memory Review

28 Simplify:	4(7+2)
20. Shipiny.	-3^{2}

29.	a.	-3 + 10 - (-)	-5) =	b.	-34-17=
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30. a.
$$(-7)(5)(3)(-2)(-1) =$$
 b. $-8,540 \div (7) =$