

Name: Answer Key

Period: _____

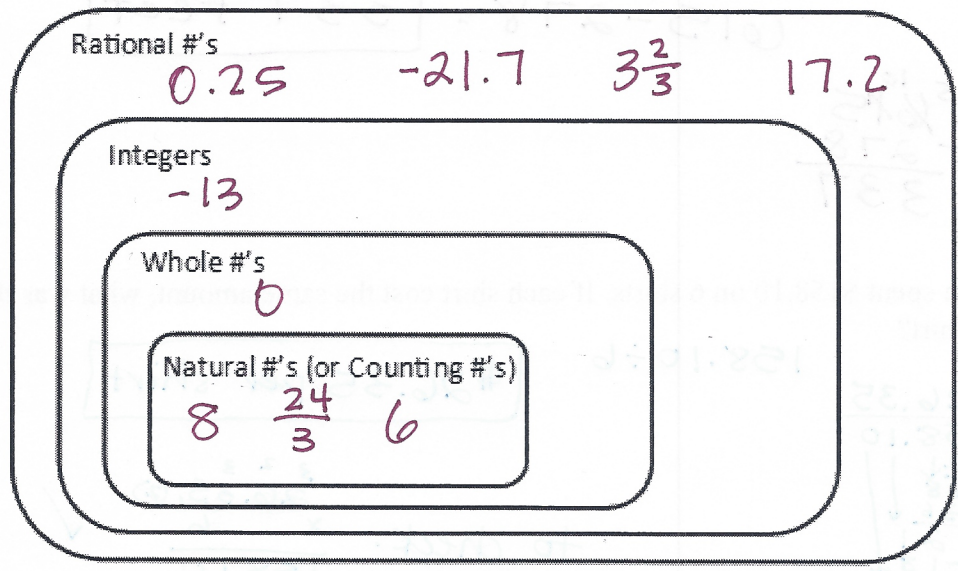
TEST REVIEW * Parent Signature = +5 points on test

Unit #1: Rational Numbers (7th Math)

Main topics: I) Describe relationships between rational numbers, using a visual diagram. (TEK 7.2A-S)
II) Solve problems involving +, -, ×, and ÷ of rational numbers (TEKS 7.3A&B-S & R)

1. Write the following numbers into the best location on the venn diagram provided below:

- ~~8~~ ~~0.25~~ ~~-13~~ ~~$\frac{24}{3}=8$~~ ~~0~~ ~~-21.7~~ ~~6~~ ~~$3\frac{2}{3}$~~ ~~17.2~~



For problems #2-7: solve and write your final answer in the box provided.

2. $14 - 20 = \boxed{-6}$
 $14 + (-20) = -6$

3. $-8 + (-15) = \boxed{-23}$

4. $-25 \times (-6) = \boxed{150}$

$\begin{array}{r} 25 \\ \times 6 \\ \hline 150 \end{array}$

5. $60 \div (-5) = \boxed{-12}$

$\begin{array}{r} 12 \\ -5 \overline{)60} \\ \underline{-5} \\ 10 \\ \underline{-10} \\ 0 \end{array}$

6. $57.05 - 5.9 = \boxed{51.15}$

$\begin{array}{r} 57.05 \\ - 5.90 \\ \hline 51.15 \end{array}$ * line up your decimals!

7. $41.5 \times 2.4 = \boxed{99.6}$

$\begin{array}{r} 41.5 \\ \times 2.4 \\ \hline 1660 \\ + 8300 \\ \hline 9960 \end{array}$

8. Which of the following sets of rational numbers includes only whole numbers? = 0, 1, 2, 3, 4...
- A) $-5, 20, \frac{14}{7}, -18$ *b/c negatives* C) $22, 7, 13, 0$
- B) $\frac{23}{5}, -67, 8.05, 8$ *b/c decimals/fractions* D) $-2\frac{1}{3}, 6.07, 7, 25$ *b/c negatives & decimals*

9. A helicopter took off and rose to a height of 615 feet, then descended 278 feet. What was the final altitude of the helicopter?

$$615 - 278 = 337 \text{ feet}$$

$$\begin{array}{r} 5 \text{ } 10 \\ 615 \\ -278 \\ \hline 337 \end{array}$$

10. Maureen spent \$158.10 on 6 shirts. If each shirt cost the same amount, what was the price of one shirt?

$$\begin{array}{r} 26.35 \\ 6 \overline{)158.10} \\ \underline{-12} \\ 38 \\ \underline{-36} \\ 21 \\ \underline{-18} \\ 300 \\ \underline{-300} \\ 0 \end{array}$$

$$158.10 \div 6$$

$$\boxed{\$26.35 \text{ per shirt}}$$

to check: $\begin{array}{r} 26.35 \\ \times 6 \\ \hline 158.10 \end{array}$ ✓

11. On New Year's Day in Amarillo, Texas, a low temperature of -8°F and a high temperature of 19°F were recorded. What was the range in temperature for that day?

difference in highest & lowest

$$19 - (-8) =$$

$$K \quad C \quad C =$$

$$19 + 8 = 27$$

$$\boxed{27^\circ}$$

12. A student recorded the following temperatures during a science lab:

$$27^\circ\text{F}, -4^\circ\text{F}, 13^\circ\text{F}, 6^\circ\text{F}, -9^\circ\text{F}, -12^\circ\text{F}$$

What would be the best name to describe these numbers?

- A) Integers *b/c positive & negative whole #'s* C) Whole numbers *b/c negatives*
- B) Rational numbers *Yes, but there is a more specific category* D) Counting numbers *b/c negatives*

13. A submarine began to descend at a rate of 135.5 feet per minute. What would be the submarine's depth after 9 minutes? *go down*

$$-135.5 \times 9$$

$$\begin{array}{r} 3 \quad 4 \quad 4 \\ 135.5 \quad 0 \\ \times \quad 9 \\ \hline 1219.5 \end{array}$$

-1,219.5 feet

14. At the grocery store, Meghan bought 4.2 ounces of curry powder for \$14.70. How much would she expect to pay for one ounce of curry powder? Record your final answer in the free response grid. *14.70 ÷ 4.2*

$$4.2 \overline{)14.70}$$

$$\begin{array}{r} 3.5 \\ 42 \overline{)147.0} \\ \underline{126} \downarrow \\ 210 \\ \underline{-210} \\ 0 \end{array}$$

\$3.50

				3	.	5	0
+	0	0	0	0		0	0
-	1	1	1	1		1	1
	2	2	2	2		2	2
	3	3	3	3		3	3
	4	4	4	4		4	4
	5	5	5	5		5	5
	6	6	6	6		6	6
	7	7	7	7		7	7
	8	8	8	8		8	8
	9	9	9	9		9	9

To check:

$$\begin{array}{r} 3.50 \\ \times 4.2 \\ \hline 700 \\ 14000 \\ \hline 14700 = 14.70 \end{array}$$

15. Miranda had \$865.90 in her savings account on Monday. She withdrew \$227.45 on Tuesday and deposited \$112.80 on Wednesday. What was the final amount of money in her account on Thursday? Record your final answer in the free response grid. *took \$ out of account*

put \$ into acct

$$\begin{array}{r} 865.90 \\ -227.45 \\ \hline 638.45 \end{array}$$

$$\begin{array}{r} 638.45 \\ +112.80 \\ \hline 751.25 \end{array}$$

\$751.25

				7	5	1	.	2	5
+	0	0	0	0		0		0	0
-	1	1	1	1		1		1	1
	2	2	2	2		2		2	2
	3	3	3	3		3		3	3
	4	4	4	4		4		4	4
	5	5	5	5		5		5	5
	6	6	6	6		6		6	6
	7	7	7	7		7		7	7
	8	8	8	8		8		8	8
	9	9	9	9		9		9	9