

Accelerated Math7 Chapter 3 Practice Test – Rational Numbers

<p>1. Which decimal is equivalent to $-\frac{5}{9}$?</p> <p>A. -0.555 B. $-0.\overline{555}$ C. 0.595 D. $0.\overline{595}$</p>	B
<p>2. What simplest term fraction is equivalent to the decimal -0.38?</p>	$\frac{38}{100} = \frac{19}{50}$ $- \frac{19}{50}$
<p>3. What symbol can be substituted for \bullet to make the following statement true?</p> <p>$-2 < -1$ $-0.\overline{7} \bullet -\frac{4}{7} \rightarrow -0.5$</p> <p>$2 > 1$</p>	$7 \overline{) 4.0} \begin{array}{r} 0.5 \\ \underline{35} \\ 50 \\ \underline{49} \\ 10 \end{array}$ <
<p>4. A toll-free sales line sold 85 products for every 125 calls in one day. What is the daily success rate of the sales line?</p>	$\frac{85}{125} = \frac{17}{25} = \frac{68}{100}$ $125 \left(\frac{4}{5} \right) = 100$ $85 \left(\frac{4}{5} \right) = 68$ $\frac{68}{100}$ 68%
<p>5. What is the fraction equivalent of $4\frac{5}{8}$?</p>	$\frac{8}{8} + \frac{8}{8} + \frac{8}{8} + \frac{8}{8} + \frac{5}{8} =$ 37 / 8
<p>6. In a survey, 0.82 of students stated they ^{do} homework every day. What is this value written as a fraction?</p>	$\frac{82}{100} = \frac{41}{50}$ 41 / 50
<p>7. What is the value of $\frac{2}{3}rs$ if $r = -\frac{6}{7}$ and $s = -\frac{3}{10}$?</p>	$\frac{2}{3} \left(-\frac{6}{7} \right) \left(-\frac{3}{10} \right) = \frac{\overset{1}{\cancel{2}} \times \overset{1}{\cancel{6}} \times \overset{1}{\cancel{3}}}{\underset{1}{\cancel{3}} \times \underset{1}{\cancel{7}} \times \underset{1}{\cancel{10}}}$ + 6 / 35
<p>8. What is the quotient of $\frac{7a}{9bc} \div \frac{21a}{12b}$?</p>	$\frac{7a}{9bc} \cdot \frac{12b}{21a} = \frac{\overset{1}{\cancel{7}} \cdot \overset{4}{\cancel{12}} \cdot \overset{1}{\cancel{b}}}{\underset{3}{\cancel{9}} \cdot \underset{3}{\cancel{21}} \cdot \overset{1}{\cancel{a}}}$ 4 / 9c

OPPOSITE

$$3 - 7 = -4$$

9. What is the value of $-x - y$ if $x = -\frac{1}{5}$ and $y = \frac{7}{15}$?

$$\frac{1}{5} - \frac{7}{15} = \frac{3}{15} - \frac{7}{15} = -\frac{4}{15}$$

$$-\frac{4}{15}$$

10. Usually Cassandra tap dances for $1\frac{7}{8}$ hours a day. Today she danced for half again as long. For how long did she tap dance today?

$$1\frac{7}{8} \times \frac{1}{2} = \frac{15}{8} \times \frac{1}{2} = \frac{15}{16} \quad \frac{15}{16} + \frac{30}{16} = \frac{45}{16} =$$

$$2\frac{12}{16} = 2\frac{3}{4}$$

11. Four pieces of wood, each $14\frac{5}{6}$ inches long, are required for building a frame. If all four pieces are cut from one board, how long should the board be, to the nearest whole foot?

$$14 \times 4 = 56$$

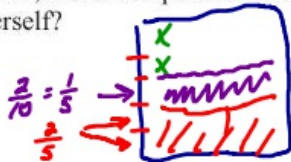
$$\frac{5}{6} \times 4 = \frac{20}{6} = 3\frac{2}{6} = 3\frac{1}{3} > 59\frac{1}{3} =$$

$$60 \text{ in} = 5 \text{ ft}$$

12. What is the sum of a fraction and its additive inverse? Justify your answer with an example.

$$7 + (-7) = 0 \quad -3 + 3 = 0$$

13. Juliana bought a container of licorice. She gave $\frac{2}{5}$ of the licorice to her friend, $\frac{2}{10}$ to her sister, and she kept the rest for herself. What fraction of the licorice did she keep for herself?



$$\frac{2}{5} = \frac{4}{10} \quad \frac{4}{10} + \frac{2}{10} = \frac{6}{10}$$

$$1 = \frac{10}{10} - \frac{6}{10} = \frac{4}{10} =$$

$$\frac{2}{5}$$

14. What is the sum of $-3\frac{5}{6} + 7\frac{2}{3}$?

$$-3\frac{5}{6} + 7\frac{2}{3}$$

$$\frac{2}{3} = \frac{4}{6} \rightarrow -\frac{23}{6} + \frac{46}{6} = \frac{46}{6} + \left(-\frac{23}{6}\right) = \frac{46 + (-23)}{6} = \frac{23}{6}$$

$$+ \frac{23}{6} = 3\frac{5}{6}$$

15. In a school survey, Randy found that $\frac{5}{12}$ of the students normally wear sneakers, and that $\frac{8}{25}$ of those who wear sneakers normally wear white sneakers. What fraction of the student body normally wears white sneakers?

$\frac{8}{25}$ OF $\frac{5}{12}$ WEAR WHITE SNEAKERS

$$\frac{28}{25} \times \frac{5}{12} = \frac{2}{3}$$

DIVIDE BOTH BY 5
DIVIDE BOTH BY 4
$$120 \left(\frac{5}{12}\right) = 50 \text{ CHECK}$$

$$50 \left(\frac{8}{25}\right) = 16$$

$$\frac{16}{120} \div \frac{8}{8} = \frac{2}{15}$$

$\frac{2}{15}$ WEAR WHITE SNEAKERS

$$\frac{1}{2} \text{ WEAR SNEAKERS AND } \frac{1}{2} \text{ OF THOSE ARE WHITE} = \frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$$