

Rational Numbers Review

Simplify the following expressions in the box provided. Remember to put your answers in simplest form.

<p>1. $\frac{14}{25} + \left(-\frac{1}{2}\right)$</p> $\frac{28}{50} - \frac{25}{50} = \frac{3}{50}$	<p>2. $-\frac{4}{5} \cdot \frac{5}{7} \cdot -2$</p> $\frac{-4}{\cancel{5}} \cdot \frac{\cancel{5}}{7} \cdot \frac{-2}{1} = \frac{8}{7}$
<p>3. $-\frac{1}{4} + \frac{7}{10}$</p> $\frac{-5}{20} + \frac{14}{20} = \frac{9}{20}$	<p>4. $-8.3 - (-11.26)$</p> $-8.3 + 11.26$ $\begin{array}{r} 010 \\ 11.26 \\ - 8.30 \\ \hline 2.96 \end{array}$
<p>5. $22.5 \cdot -1.4$</p> $\begin{array}{r} 22.5 \\ \times 1.4 \\ \hline 900 \\ + 2250 \\ \hline -31.50 \end{array}$	<p>6. $\frac{7}{9} \div -\frac{8}{9}$</p> $\frac{7}{\cancel{9}} \cdot \frac{-\cancel{9}}{8} = \frac{-7}{8}$
<p>7. $-\frac{1.28}{6.4}$</p> $64 \overline{) 12.8}$ $\begin{array}{r} -0.2 \\ 64 \overline{) 12.8} \\ \underline{-12.8} \\ 0 \end{array}$	<p>8. $3\frac{1}{2} \div -1\frac{1}{4}$</p> $\frac{7}{2} \div \frac{-5}{4} = \frac{7}{2} \cdot \frac{4}{-5} = \frac{14}{-5}$
<p>9. $5.9 + (-6.3) + 4 - (-7.7) =$</p> $5.9 - 6.3 + 4 + 7.7 =$ $\begin{array}{r} 5.9 \\ + 4.0 \\ + 7.7 \\ \hline 17.6 \end{array} \quad \begin{array}{r} 17.6 \\ - 6.3 \\ \hline 11.3 \end{array}$	<p>10. Place the numbers in descending order.</p> $0.38, \frac{3}{5}, 1.2, -1, \frac{7}{5} = 1.4$ $\frac{3}{5} = 0.6 \quad \frac{7}{5} = 1.4$ $\frac{7}{5}, 1.2, \frac{3}{5}, 0.38, -1$

Answers	
1.	$\frac{3}{50}$
2.	$\frac{8}{7}$
3.	$\frac{9}{20}$
4.	2.96
5.	-31.5
6.	$-\frac{7}{8}$
7.	-0.2
8.	$\frac{14}{-5}$
9.	11.3
10.	$\frac{7}{5}, 1.2, \frac{3}{5}, 0.38, -1$

<p>11. Convert to a decimal.</p> $3 \frac{6}{11} = 3.54$ <p>Handwritten work: $3 \overline{) 6.000}$ with steps: $11 \overline{) 6.000}$, -55, 50, -44, 60.</p>	<p>12. Convert to a fraction in simplest form.</p> -8.045 $-8 \frac{45}{1000} = -8 \frac{9}{200}$	<p>11. <u>3.54</u></p> <p>12. <u>$-8 \frac{9}{200}$</u></p>
<p>13. Place the numbers in ascending order.</p> $-0.35, -\frac{1}{5}, -1, -\frac{3}{10} = -0.3$ $= -0.2$ $-1, -0.35, -\frac{3}{10}, -\frac{1}{5}$	<p>14. Compare. Use $>$, $<$, or $=$ to complete each statement.</p> $\frac{7}{8} > \frac{7}{9}$ <p>Handwritten work: $8 \overline{) 7.000}$ with steps: 0.875, -64, 60, 56, 40; $9 \overline{) 7.000}$ with steps: 0.777, 63, 70, 63, 70.</p>	<p>13. <u>$-1, -0.35, -\frac{3}{10}, -\frac{1}{5}$</u></p> <p>14. <u>$>$</u></p>
<p>15. Compare. Use $>$, $<$, or $=$ to complete each statement.</p> $0.65 < \frac{7}{10}$	<p>16. Compare. Use $>$, $<$, or $=$ to complete each statement.</p> $-0.88 < -\frac{7}{8} = -0.875$ <p>(it is closer to 0)</p>	<p>15. <u>$<$</u></p> <p>16. <u>$<$</u></p>
<p>17. You buy five movie tickets and one \$7 bucket of popcorn for \$40.75. How much does each ticket cost?</p> <p>Handwritten work: $40.75 - 7.00 = 33.75$; $5 \overline{) 33.75}$ with steps: 6.75, 30, 37, 35, 25.</p>	<p>18. If you walk 3.5 miles per hour, how far will you walk in 1.4 hours?</p> <p>Handwritten work: $3.5 \times 1.4 = 4.9$ mi</p>	<p>17. <u>\$6.75</u></p> <p>18. <u>4.9 mi.</u></p>
<p>19. Jack ate two thirds of a pizza and Donte ate one quarter of it. What fraction of the pizza did they eat?</p> $\frac{2}{3} + \frac{1}{4} = \frac{8}{12} + \frac{3}{12} = \frac{11}{12}$	<p>20. About seven-twelfths of a golf course is in the fairways, one-eighth in the greens, and the rest in the trees. What part of the golf course is in the trees?</p> $\frac{7}{12} + \frac{1}{8} = \frac{14}{24} + \frac{3}{24} = \frac{17}{24}$ $\frac{24}{24} - \frac{17}{24} = \frac{7}{24}$ trees	<p>19. <u>$\frac{11}{12}$</u></p> <p>20. <u>$\frac{7}{24}$ trees</u></p>
<p>21. Explain what happens to the value of a fraction if the denominator gets larger. Include an example in your answer.</p> <p>The value is smaller</p> $\frac{1}{4} = 0.25$ $\frac{1}{10} = 0.10$	<p>22. Create a decimal that has a value between $\frac{4}{7}$ and $\frac{1}{2} = 0.5$</p> <p>Handwritten work: $7 \overline{) 4.000}$ with steps: 0.571, -35, 50, 49, 10. Answer: 0.53</p>	<p>21. Write in the question box.</p> <p>22. <u>Anything between about 0.53 and 0.5</u></p>