

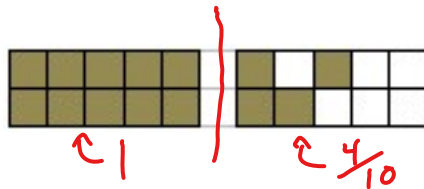
KEY

Answers.
NOT Solutions

Math 8 Math Basics Review

Directions: Answer all questions on a separate piece of paper. Show all of your work.
Answer in simplified lowest terms.

1. What fraction is represented in the diagram below?



$1\frac{2}{5}$ or $\frac{7}{5}$

2. Write the following fractions in lowest terms.

a. $\frac{30}{36} = \frac{5}{6}$

c. $\frac{8}{12} = \frac{2}{3}$

b. $\frac{21}{56} = \frac{3}{8}$

d. $\frac{28}{36} = \frac{7}{9}$

3. Write the following improper fractions as mixed numbers, in lowest terms.

a. $\frac{25}{10} = 2\frac{1}{2}$

c. $\frac{30}{8} = 3\frac{3}{4}$

b. $\frac{51}{8} = 6\frac{3}{8}$

d. $\frac{34}{24} = 1\frac{5}{12}$

4. Write the following mixed numbers as improper fractions, in lowest terms.

a. $7\frac{3}{15} = \frac{36}{5}$

c. $1\frac{15}{24} = \frac{13}{8}$

b. $3\frac{6}{24} = \frac{13}{4}$

d. $2\frac{33}{36} = \frac{35}{12}$

5. Find the product using long multiplication.

a. $312 \times 6 = 1872$

c. $774 \times 8 = 6192$

b. $629 \times 47 = 29563$

d. $585 \times 271 = 158535$

6. Find the quotient and remainder using long division.

a. $673 \div 4 = 168 \text{ r } 3$ c. $973 \div 8 = 121 \text{ r } 5$
 b. $412 \div 3 = 137 \text{ r } 1$ d. $422 \div 16 = 26 \text{ r } 6$

7. Find the sum or difference:

a. $(-9) + (4) = -5$ d. $(-7) + (+6) = -1$
 b. $(+3) + (-12) = -9$ e. $(-6) + (+12) = 6$
 c. $0 + (-18) = -18$ f. $(-8) + (-5) = -13$

8. Find the product or quotient:

a. $45 \div 9 = 5$ d. $(-12) \times (-7) = 84$
 b. $(-6) \times 11 = -66$ e. $(+54) \div (-9) = -6$
 c. $(+32) \div (-4) = -8$ f. $(+5) \times (+7) = 35$

9. Solve:

a. $12 \times (-3) + 20 \div 2 = -26$ e. $(-56) \div [14 - (+6)] \times 2 = -14$
 b. $[(-12) - (-8)] \times [2 + (-6)] = 16$ f. $(11 - 4) \times (3 - (-4)) = 49$
 c. $36 \div (-3 + 4 \times 3) - 4 = 0$ g. $(-6 + 7 \times 8) \div (-4 + 2) = -25$
 d. $6 \times [-5 - (-3)] \div (-2) = 6$ h. $\frac{2 \times (6+4) + (-4)}{-4 + (-2) \times (-1)} = -8$

10. An ice hockey player gets a rating of -3 in four consecutive games, and then a plus/minus of zero in the fifth game.

- a) What is his total plus/minus rating? -12
 b) What is his average plus/minus rating? $\rightarrow -2\frac{2}{5}$ or -2.4

11. The average temperature in Calgary, Alberta, over 7 days, is recorded as: 11° , 4° , 7° , 4° , -3° , -9° , and 0° . What is the average temperature? 2°

12. A banker deposits (puts in) \$50 per week for 12 weeks, and withdraws (takes out) \$70 per week for 6 weeks. Then, he uses half of the money to make a payment.

- a) Write an equation to express the amount of money he has left.
 b) How much money does he have left?

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 $\boxed{\$90}$

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 $\boxed{[(50 \times 12) + (-70 \times 6)] \div 2}$
 or
 $\boxed{\frac{50 \times 12 - 70 \times 6}{2}}$