

Math Homework II Partial – 7th grade

5-2

Practice

Rational Numbers

Write each number as a fraction.

1. 29

2. 0

3. $3\frac{7}{8}$

4. -47

5. $-5\frac{6}{7}$

6. $4\frac{3}{20}$

7. $-7\frac{2}{15}$

8. $10\frac{2}{9}$

Write each decimal as a fraction or mixed number in simplest form.

9. 0.32

10. 0.42

11. $0.\overline{8}$

12. $-6.\overline{3}$

13. 0.91

14. 17.875

15. $-0.666\ldots$

16. 0.07

5-4 Practice

Dividing Rational Numbers

Find each quotient. Write in simplest form.

1. $\frac{1}{2} \div \frac{1}{10}$

2. $-\frac{3}{8} \div \frac{9}{24}$

3. $-\frac{15}{16} \div \frac{7}{12}$

4. $\frac{17}{20} \div \left(-\frac{3}{10}\right)$

5. $-\frac{3}{8} \div \left(-\frac{3}{9}\right)$

6. $\frac{25}{32} \div \frac{15}{56}$

7. $0 \div \frac{17}{18}$

8. $-1\frac{1}{2} \div \frac{1}{4}$

9. $\frac{8}{9} \div \frac{22}{81}$

10. $8\frac{4}{9} \div 2\frac{1}{9}$

11. $4\frac{3}{5} \div \frac{2}{5}$

12. $-\frac{100}{63} \div \frac{10}{81}$

13. $18\frac{1}{3} \div \left(-4\frac{1}{6}\right)$

14. $-3\frac{2}{9} \div \frac{4}{27}$

5-5 Practice

Adding and Subtracting Like Fractions

Find each sum or difference. Write in simplest form.

1. $\frac{5}{7} + \frac{2}{7}$

2. $\frac{5}{11} - \frac{1}{11}$

3. $\frac{13}{20} - \frac{3}{20}$

4. $\frac{5}{16} + \frac{15}{16}$

5. $-\frac{19}{40} + \frac{21}{40}$

6. $-\frac{7}{9} - \frac{4}{9}$

7. $\frac{14}{23} - \frac{16}{23}$

8. $\frac{25}{36} + \left(-\frac{7}{36}\right)$

9. $\frac{21}{25} + \frac{9}{25}$

10. $10\frac{4}{7} + 11\frac{5}{7}$

11. $9\frac{3}{8} + 4\frac{1}{8}$

12. $-8\frac{7}{10} + 2\frac{3}{10}$

13. $23\frac{17}{20} - 4\frac{7}{20}$

14. $22\frac{3}{8} - 18\frac{5}{8}$

5-6 Practice

Least Common Multiple

Find the least common multiple (LCM) of each pair of numbers or monomials.

1. 10, 12

2. 9, 15

3. 20, 24

4. 30, 45

5. 14, 15

6. 35, 75

7. 12, 63

8. 48, 20

9. $15q$, $3q^2t$

10. 9, $18b$

11. $8y$, $10y^2$

12. $20p$, $100p^2$

Find the least common denominator (LCD) of each pair of fractions.

13. $\frac{1}{2}$, $\frac{2}{3}$

14. $\frac{9}{14}$, $\frac{3}{7}$

15. $\frac{5}{12}$, $\frac{8}{15}$

16. $\frac{13}{18}$, $\frac{6}{45}$

5-7 Practice

Adding and Subtracting Unlike Fractions

Find each sum or difference. Write in simplest form.

1. $\frac{9}{10} + \frac{1}{2}$

2. $\frac{7}{8} + \frac{1}{10}$

3. $-\frac{3}{4} + \frac{5}{16}$

4. $\frac{4}{5} - \frac{2}{6}$

5. $\frac{5}{8} - \frac{3}{16}$

6. $\frac{1}{3} + \frac{5}{36}$

7. $\frac{7}{10} - \frac{14}{100}$

8. $\frac{17}{21} - \frac{4}{6}$

9. $\frac{11}{14} - \frac{1}{6}$

10. $\frac{4}{15} - \left(-\frac{3}{12}\right)$

11. $\frac{7}{15} + \frac{3}{6}$

12. $-\frac{7}{8} + \frac{9}{10}$

3-1 Practice

The Distributive Property

Use the Distributive Property to write each expression as an equivalent expression. Then evaluate the expression.

1. $6(80 + 1)$

2. $7(70 - 4)$

3. $(300 + 6)4$

4. $(100 + 10)9$

5. $5(400 - 90)$

6. $-8(700 - 3)$

7. $4(20 - 9)$

8. $(100 - 3)(-7)$

9. $-1(75 - 9)$

10. $14(21 - 11)$

11. $-25(80 + 2)$

12. $31(450 - 18)$

Use the Distributive Property to write each expression as an equivalent algebraic expression.

13. $7(y + 11)$

14. $-6(t - 1)$

15. $-8(u - 2)$

16. $(r + 9)(-4)$

17. $-1(-h + 5)$

18. $-2(f + 3)$

19. $-4(b - 1)$

20. $1(7 - v)$

3-2 Practice

Simplifying Algebraic Expressions

Simplify each expression.

1. $6y - 4 + y$

2. $8u + 2u - 3u$

3. $-12 + 5g + 8 - g$

4. $-21w + 5 + 3w - 1$

5. $r + r + r + r + r$

6. $f - 3f + 2 - f + 1$

7. $-8q + 6 + 5q - 3$

8. $h + 5h - 3 - 6h$

9. $2a - 5(a + 1)$

10. $b - 2(b - 2)$

11. $9 - t - 3(t + 3)$

12. $-8 + 5(g + 2) - 2$

3-3 Practice

Solving Equations by Adding or Subtracting

Solve each equation. Check your solution.

1. $z + 6 = -5$

2. $x - 8 = -3$

3. $c - 2 = 21$

4. $v + 9 = 0$

5. $q + 10 = -30$

6. $w + 15 = 0$

7. $z + 12 = -19$

8. $b - 11 = 8$

9. $a - 12 = 0$

10. $r + 11 = 12$

11. $p + (-9) = 33$

12. $n - 16 = -16$

3-4 Practice

Solving Equations by Multiplying or Dividing

Solve each equation. Check your solution.

1. $8y = 56$

2. $\frac{w}{4} = 12$

3. $-3u = -12$

4. $\frac{r}{-5} = 15$

5. $9d = -9$

6. $-8f = 0$

7. $\frac{n}{-1} = 31$

8. $\frac{v}{14} = -7$

9. $-1b = 24$

10. $-12h = -72$

11. $\frac{r}{24} = -5$

12. $\frac{p}{-6} = -3$

3-5**Practice*****Solving Two-Step Equations***

Solve each equation. Check your solution.

1. $6p + 22 = 10$

2. $\frac{r}{3} - 4 = 2$

3. $5d - 9 = -24$

4. $21q - 11 = 10$

5. $\frac{v}{-6} + 1 = 0$

6. $7h + 20 = -8$

7. $8k - 40 = 16$

8. $\frac{w}{2} - 16 = 5$

9. $\frac{s}{4} - 5 = 1$

10. $\frac{x}{8} + 7 = 9$

11. $\frac{z}{10} - 20 = -20$

12. $\frac{r}{-2} + 11 = 15$

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3-6 Practice

Writing Two-Step Equations

Translate each sentence into an equation. Then find each number.

1. Eight less than 7 times a number is -29 .
2. Twenty more than twice a number is 52.
3. The difference between three times a number and 11 is 10.
4. One more than the difference between 18 and seven times a number is -9 .
5. Eight times a number plus 6 less than twice the number is 34.
6. 26 more than the product of a number and 17 is -42 .
7. Twelve less than the quotient of a number and 8 is -1 .

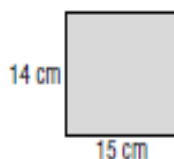
3-8 Practice

Using Formulas

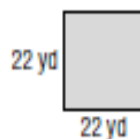
1. **AIR TRAVEL** What is the rate, in miles per hour, of a plane that travels 1680 miles in 3 hours?
2. **TRAVEL** A train is traveling at 54 miles per hour. How long will it take to go 378 miles?
3. **SWIMMING** What is the rate, in feet per second, of a swimmer who crosses a 164-foot-long pool in 41 seconds?
4. **BALLOONING** A balloon is caught in a wind traveling at 25 feet per second. If the wind is constant, how long will it take the balloon to travel 1000 feet?

Find the perimeter and area of each rectangle.

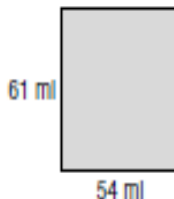
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6.



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8.

