Fluency Table of Contents

Page

Addition and Subtraction with Rational Numbers

Skills Practice (Forms A and B)

Add integers. 370

Subtract integers. 372

Add rational numbers. 374

Add and subtract rational numbers. 376

Repeated Reasoning

Find patterns in adding integers. 378

Find patterns in subtracting integers. 379

Find patterns in adding rational numbers. 380

Find patterns in subtracting rational numbers. 381

Multiplication and Division with Rational Numbers

Skills Practice (Forms A and B)

Multiply rational numbers. 382

Divide rational numbers. 384

Expressing Rational Numbers as Decimals

Skills Practice (Forms A and B)

Write fractions as decimals. 386

Repeated Reasoning

Find patterns with repeating decimals. 388

Find more patterns with repeating decimals. 389

Using Properties of Operations

Skills Practice (Forms A and B)

Write an equivalent expression without parentheses, and combine terms if possible. 390

Use the distributive property to write the expression as a product. 392

Page

Two-Step Equations

Skills Practice (Forms A and B)

Solve equations of form $px + q = r$ with integers. 394

Solve equations of form $px + q = r$ with rational numbers. 396

Solve equations of form $p(x + q) = r$ with integers. 398

Solve equations of form $p(x + q) = r$ with rational numbers. 400

Repeated Reasoning

Find patterns in two-step equations of form $px + q = r$. 402

Find patterns in two-step equations of form $p(x + q) = r$. 403

Two-Step Inequalities

Skills Practice (Forms A and B)

Solve inequalities with integers. 404

Solve inequalities with rational numbers. 406

Repeated Reasoning

Find patterns in two-step inequalities. 408

Find more patterns in two-step inequalities. 409

Addition and Subtraction with Rational Numbers—Skills Practice

Name: _____

Add integers.

Form A

1. $-5 + (-3) =$ _____
2. $14 + (-4) + 6 + (-16) =$ _____
3. $9 + (-4) =$ _____
4. $15 + (-7) + (-3) =$ _____
5. $-17 + 16 =$ _____
6. $-18 + (-17) =$ _____
7. $14 + (-16) =$ _____
8. $-16 + (-7) + (-4) =$ _____
9. $-19 + 36 =$ _____
10. $19 + 13 + (-9) =$ _____
11. $-17 + 14 + 7 + 10 =$ _____
12. $-12 + (-7) =$ _____
13. $-8 + 14 + (-2) + 6 =$ _____
14. $-17 + (-19) =$ _____
15. $79 + (-24) =$ _____
16. $23 + 14 + (-3) =$ _____
17. $-8 + 11 =$ _____
18. $-9 + 43 + (-11) =$ _____
19. $-6 + 12 + (-12) + 6 =$ _____
20. $16 + (-26) =$ _____
21. $45 + (-33) =$ _____
22. $18 + 19 + (-8) + (-19) + 7 =$ _____
23. $15 + (-3) + (-2) + 11 + 9 =$ _____
24. $7 + (-14) + (-6) + 13 + 4 =$ _____

Addition and Subtraction with Rational Numbers—Skills Practice

Name: _____

Add integers. **Form B**

1. $-6 + (-4) =$ _____
2. $16 + (-8) + (-2) =$ _____
3. $17 + (-13) =$ _____
4. $13 + (-3) + 7 + (-17) =$ _____
5. $-13 + (-16) =$ _____
6. $-18 + 17 =$ _____
7. $15 + (-18) =$ _____
8. $-18 + (-9) + (-2) =$ _____
9. $-14 + 32 =$ _____
10. $18 + 16 + (-8) =$ _____
11. $-14 + 18 + 4 + 10 =$ _____
12. $-13 + (-4) =$ _____
13. $-16 + (-12) =$ _____
14. $-5 + 13 + (-5) + 7 =$ _____
15. $86 + (-12) =$ _____
16. $26 + 17 + (-6) =$ _____
17. $-4 + 12 =$ _____
18. $-2 + 64 + (-18) =$ _____
19. $-8 + (-2) =$ _____
20. $4 + (-5) + (-9) + 10 =$ _____
21. $-13 + (-13) =$ _____
22. $14 + 7 + (-4) + (-7) + 8 =$ _____
23. $16 + (-4) + (-2) + 17 + 13 =$ _____
24. $7 + (-14) + (-10) + 17 + 15 =$ _____

Addition and Subtraction with Rational Numbers—Skills Practice

Name: _____

Subtract integers. **Form A**

1 $-8 - (-14) =$ ____

2 $-8 - 4 - (-8) =$ ____

3 $17 - (-8) =$ ____

4 $6 - (-7) - (-3) - 16 =$ ____

5 $-12 - 4 =$ ____

6 $-13 - (-7) =$ ____

7 $6 - (-3) =$ ____

8 $-5 - (-17) - (-5) =$ ____

9 $-62 - (-11) =$ ____

10 $-4 - 8 - 16 =$ ____

11 $-8 - 15 =$ ____

12 $4 - 17 - (-6) - 3 =$ ____

13 $11 - (-15) =$ ____

14 $-46 - 21 =$ ____

15 $41 - (-13) - 21 =$ ____

16 $14 - (-17) =$ ____

17 $55 - (-29) - (-45) =$ ____

18 $8 - (-14) - (-2) - 4 =$ ____

19 $6 - 7 - (-4) - 3 =$ ____

20 $-25 - 25 =$ ____

21 $30 - (-15) - 40 =$ ____

22 $-7 - (-14) - 4 - (-27) - 5 =$ ____

23 $-12 - (-7) - (-19) - (-13) - (-2) =$ ____

24 $-11 - (-5) - 9 - (-13) - (-5) =$ ____

25 $8 - (-3) - 10 - (-12) - (-7) =$ ____

Addition and Subtraction with Rational Numbers—Skills Practice

Name: _____

Subtract integers. **Form B**

1. $-4 - (-19) =$ ____
2. $-7 - 9 - (-7) =$ ____
3. $18 - (-9) =$ ____
4. $-13 - 11 =$ ____
5. $8 - (-6) - (-4) - 18 =$ ____
6. $-16 - (-8) =$ ____
7. $2 - (-5) =$ ____
8. $-4 - (-18) - (-4) =$ ____
9. $-73 - (-11) =$ ____
10. $-3 - 6 - 17 =$ ____
11. $-7 - 14 =$ ____
12. $12 - (-13) =$ ____
13. $8 - 19 - (-2) - 1 =$ ____
14. $-41 - 38 =$ ____
15. $56 - (-17) - 46 =$ ____
16. $13 - (-19) =$ ____
17. $35 - (-31) - (-65) =$ ____
18. $18 - 3 - (-2) - 7 =$ ____
19. $12 - (-6) =$ ____
20. $-15 - 10 =$ ____
21. $14 - (-11) - 21 =$ ____
22. $-8 - (-16) - 6 - (-38) - 5 =$ ____
23. $-17 - (-19) - (-18) - (-1) - (-7) =$ ____
24. $-13 - (-12) - 15 - (-8) - 3 =$ ____
25. $-4 - (-8) - 4 - (-12) - 8 =$ ____

Addition and Subtraction with Rational Numbers—Skills Practice

Name: _____

Add rational numbers. **Form A**

1 $-7.25 + 8.67 =$ _____

2 $-\frac{5}{6} + 7 + \left(-\frac{1}{6}\right) =$ _____

3 $-5 + \frac{1}{4} =$ _____

4 $9 + (-10.2) =$ _____

5 $-\frac{1}{8} + \left(-\frac{7}{8}\right) =$ _____

6 $-\frac{5}{8} + \left(-\frac{1}{8}\right) + \frac{3}{4} =$ _____

7 $15.4 + (-16) =$ _____

8 $-1\frac{2}{5} + \frac{4}{5} =$ _____

9 $-8 + \left(-3\frac{1}{2}\right) =$ _____

10 $-18.04 + 7.9 =$ _____

11 $-11 + (-4.25) =$ _____

12 $-\frac{5}{6} + \left(-\frac{5}{6}\right) =$ _____

13 $\frac{2}{3} + \left(-\frac{1}{3}\right) =$ _____

14 $5.3 + (-16.4) =$ _____

15 $1\frac{3}{4} + \left(-\frac{1}{2}\right) + \left(-\frac{1}{4}\right) =$ _____

16 $-5.75 + 10 =$ _____

17 $-8.9 + (-7.2) + 18.9 =$ _____

18 $-4.2 + (-3.7) =$ _____

19 $3.5 + (-13.5) + (-5.6) =$ _____

20 $-3\frac{1}{6} + (-8) =$ _____

Addition and Subtraction with Rational Numbers—Skills Practice

Name: _____

Add rational numbers. **Form B**

1 $-5.25 + 9.76 =$ _____

2 $-\frac{5}{8} + 11 + \left(-\frac{3}{8}\right) =$ _____

3 $-6 + \frac{3}{4} =$ _____

4 $6 + (-8.2) =$ _____

5 $-1\frac{3}{8} + \frac{5}{8} =$ _____

6 $-2\frac{1}{5} + \frac{3}{5} =$ _____

7 $14.9 + (-17) =$ _____

8 $-\frac{1}{3} + \left(-\frac{5}{6}\right) + 1\frac{1}{6} =$ _____

9 $-9 + \left(-1\frac{1}{2}\right) =$ _____

10 $-16.08 + 5.2 =$ _____

11 $-12 + (-6.75) =$ _____

12 $-\frac{3}{4} + \left(-\frac{3}{4}\right) =$ _____

13 $\frac{4}{5} + \left(-\frac{3}{5}\right) =$ _____

14 $3.6 + (-18.8) =$ _____

15 $2\frac{1}{2} + \left(-\frac{1}{8}\right) + \left(-\frac{3}{8}\right) =$ _____

16 $-4.25 + 10 =$ _____

17 $-9.1 + (-4.3) + 19.1 =$ _____

18 $-4.1 + (-2.8) =$ _____

19 $4.5 + (-8.2) + (-14.5) =$ _____

20 $-4\frac{1}{3} + (-7) =$ _____

Addition and Subtraction with Rational Numbers—Skills Practice

Name: _____

Add and subtract rational numbers. **Form A**

1 $4\frac{3}{4} - \left(-2\frac{1}{4}\right) =$ _____

2 $-16.5 - 11 =$ _____

3 $\frac{1}{5} - \left(-\frac{4}{5}\right) =$ _____

4 $7.75 - 14.25 =$ _____

5 $-8\frac{1}{3} - (-4) =$ _____

6 $-15.7 - (-16.2) =$ _____

7 $8.7 - (-5.2) =$ _____

8 $6\frac{5}{6} - 9\frac{1}{6} =$ _____

9 $6.2 - (-6.8) =$ _____

10 $11.92 - 4.5 =$ _____

11 $2\frac{1}{4} - 8\frac{1}{2} + 7\frac{3}{4} =$ _____

12 $4.2 - 17.6 + 5.8 =$ _____

13 $-12.6 + 4.2 - (-2.6) =$ _____

14 $-5\frac{2}{5} - 8\frac{4}{5} + 15\frac{2}{5} =$ _____

15 $-6.5 + 11 - (-6.5) =$ _____

16 $\frac{1}{6} - (-7) + 3 - \left(-\frac{5}{6}\right) =$ _____

17 $\frac{1}{4} - 1\frac{3}{4} + 2\frac{3}{4} - \left(-2\frac{3}{4}\right) =$ _____

18 $-6.1 - 6 - (-6.1) + 16 =$ _____

19 $1.25 - 2.75 - (-3.75) + (-7.25) =$ _____

20 $8\frac{1}{5} - \frac{3}{5} + \left(-\frac{4}{5}\right) - \left(-1\frac{2}{5}\right) =$ _____

Addition and Subtraction with Rational Numbers—Skills Practice

Name: _____

Add and subtract rational numbers. **Form B**

1 $5\frac{5}{8} - \left(-3\frac{3}{8}\right) =$ _____

2 $-14.5 - 8 =$ _____

3 $9.75 - 16.25 =$ _____

4 $\frac{1}{6} - \left(-\frac{5}{6}\right) =$ _____

5 $-6\frac{1}{4} - (-2) =$ _____

6 $-14.3 - (-17.1) =$ _____

7 $9.2 - (-8.6) =$ _____

8 $4\frac{2}{5} - 7\frac{1}{5} =$ _____

9 $4.7 - (-9.3) =$ _____

10 $9.84 - 8.5 =$ _____

11 $3\frac{5}{6} - 2\frac{1}{3} + 6\frac{1}{6} =$ _____

12 $6.7 - 19.2 + 3.3 =$ _____

13 $-13.4 + 3.9 - (-3.4) =$ _____

14 $-6\frac{1}{2} - 7\frac{1}{2} + 16\frac{1}{2} =$ _____

15 $-4.5 + 13 - (-4.5) =$ _____

16 $-4.1 - 8 - (-4.1) + 18 =$ _____

17 $\frac{2}{5} - 1\frac{3}{5} + 3\frac{3}{5} - \left(-3\frac{3}{5}\right) =$ _____

18 $\frac{1}{3} - (-8) + 2 - \left(-\frac{2}{3}\right) =$ _____

19 $9\frac{3}{8} - \frac{5}{8} + \left(-\frac{5}{8}\right) - \left(-1\frac{1}{4}\right) =$ _____

20 $4.25 - 16.75 - (-0.75) + (-3.25) =$ _____

Addition and Subtraction with Rational Numbers—Repeated Reasoning

Name: _____

Find patterns in adding integers.

Set A

1. $-6 + (-48) + 6 =$ _____
2. $-6 + (-148) + 6 =$ _____
3. $-16 + (-48) + 16 =$ _____
4. $-16 + (-148) + 16 =$ _____
5. $-26 + (-48) + 26 =$ _____
6. $-26 + (-148) + 26 =$ _____
7. $-36 + (-48) + 36 =$ _____
8. $-36 + (-148) + 36 =$ _____

Set B

1. $-6 + (-48) + 16 =$ _____
2. $-16 + (-48) + 26 =$ _____
3. $-26 + (-48) + 36 =$ _____
4. $-6 + (-148) + 16 =$ _____
5. $-16 + (-148) + 26 =$ _____
6. $-26 + (-148) + 36 =$ _____
7. $-16 + (-48) + 6 =$ _____
8. $-26 + (-48) + 16 =$ _____
9. $-36 + (-48) + 26 =$ _____
10. $-16 + (-148) + 6 =$ _____
11. $-26 + (-148) + 16 =$ _____
12. $-36 + (-148) + 26 =$ _____

Describe a pattern you see in one of the sets of problems above.

_____

_____

_____

Addition and Subtraction with Rational Numbers—Repeated Reasoning

Name: _____

Find patterns in subtracting integers.

Set A

1. $-9 - 37 - (-9) =$ _____
2. $-9 - 137 - (-9) =$ _____
3. $-19 - 37 - (-19) =$ _____
4. $-19 - 137 - (-19) =$ _____
5. $-29 - 37 - (-29) =$ _____
6. $-29 - 137 - (-29) =$ _____
7. $-39 - 37 - (-39) =$ _____
8. $-39 - 137 - (-39) =$ _____

Set B

1. $-9 - 37 - (-19) =$ _____
2. $-19 - 37 - (-29) =$ _____
3. $-29 - 37 - (-39) =$ _____
4. $-9 - 137 - (-19) =$ _____
5. $-19 - 137 - (-29) =$ _____
6. $-29 - 137 - (-39) =$ _____
7. $-19 - 37 - (-9) =$ _____
8. $-29 - 37 - (-19) =$ _____
9. $-39 - 37 - (-29) =$ _____
10. $-19 - 137 - (-9) =$ _____
11. $-29 - 137 - (-19) =$ _____
12. $-39 - 137 - (-29) =$ _____

Describe a pattern you see in one of the sets of problems above.

_____

_____

_____

Addition and Subtraction with Rational Numbers—Repeated Reasoning

Name: _____

Find patterns in adding rational numbers.

Set A

1. $-0.9 + 4.9 + (-4.0) =$ ____
2. $-0.8 + 4.9 + (-4.0) =$ ____
3. $-0.7 + 4.9 + (-4.0) =$ ____
4. $-0.6 + 4.9 + (-4.0) =$ ____
5. $-0.5 + 4.9 + (-4.0) =$ ____
6. $-0.4 + 4.9 + (-4.0) =$ ____
7. $-0.3 + 4.9 + (-4.0) =$ ____
8. $-0.2 + 4.9 + (-4.0) =$ ____
9. $-0.1 + 4.9 + (-4.0) =$ ____

Set B

1. $-0.9 + 5.9 + (-5.0) =$ ____
2. $-0.9 + 5.8 + (-5.0) =$ ____
3. $-0.9 + 5.7 + (-5.0) =$ ____
4. $-0.9 + 5.6 + (-5.0) =$ ____
5. $-0.9 + 5.5 + (-5.0) =$ ____
6. $-0.9 + 5.4 + (-5.0) =$ ____
7. $-0.9 + 5.3 + (-5.0) =$ ____
8. $-0.9 + 5.2 + (-5.0) =$ ____
9. $-0.9 + 5.1 + (-5.0) =$ ____

Describe a pattern you see in one of the sets of problems above.

_____

_____

_____

Addition and Subtraction with Rational Numbers—Repeated Reasoning

Name: _____

Find patterns in subtracting rational numbers.

Set A

1. $4 - 2 =$ _____
2. $2 - 4 =$ _____
3. $6 - 5 =$ _____
4. $5 - 6 =$ _____
5. $8 - 3 =$ _____
6. $3 - 8 =$ _____
7. $5 - 1.5 =$ _____
8. $1.5 - 5 =$ _____
9. $7 - 2.5 =$ _____
10. $2.5 - 7 =$ _____
11. $12 - 3.5 =$ _____
12. $3.5 - 12 =$ _____

Set B

1. $-3 - 4 =$ _____
2. $-2 - 4 =$ _____
3. $-1 - 4 =$ _____
4. $-4 - 3 =$ _____
5. $-4 - 2 =$ _____
6. $-4 - 1 =$ _____
7. $-13 - 0.5 =$ _____
8. $-12 - 0.5 =$ _____
9. $-11 - 0.5 =$ _____
10. $0.5 - 13 =$ _____
11. $0.5 - 12 =$ _____
12. $0.5 - 11 =$ _____

Describe a pattern you see in one of the sets of problems above.

_____

_____

_____

Multiplication and Division with Rational Numbers—Skills Practice

Name: _____

Multiply rational numbers.

Form A

1 $-\frac{3}{5} \times \left(-\frac{5}{8}\right) =$ _____

2 $2 \times (-5) \times 3 \times (-4) =$ _____

3 $-0.2 \times (-0.4) =$ _____

4 $-\frac{1}{6} \times \frac{5}{6} =$ _____

5 $-9 \times (-4) =$ _____

6 $-8 \times 7 =$ _____

7 $0.2 \times (-0.05) \times 0.3 =$ _____

8 $-0.6 \times 0.03 =$ _____

9 $6 \times (-6) =$ _____

10 $-\frac{1}{5} \times \frac{3}{5} \times \frac{4}{5} =$ _____

11 $-\frac{1}{4} \times \left(-\frac{3}{4}\right) =$ _____

12 $-0.5 \times 0.4 \times 0.3 =$ _____

13 $0.5 \times (-0.7) =$ _____

14 $-7 \times (-3) \times (-4) =$ _____

15 $-7 \times (-4) =$ _____

16 $\frac{1}{3} \times \left(-\frac{2}{3}\right) =$ _____

17 $5 \times (-8) =$ _____

18 $-2 \times -6 \times -3 =$ _____

19 $-10 \times 14 =$ _____

20 $-\frac{5}{8} \times \frac{2}{5} \times \left(-\frac{1}{4}\right) =$ _____

21 $100 \times (-9) =$ _____

22 $-\frac{1}{4} \times \frac{3}{2} \times \frac{1}{2} =$ _____

23 $-0.5 \times 0.1 \times (-0.2) \times (-0.4) =$ _____

24 $-\frac{1}{2} \times \frac{3}{2} \times \frac{5}{2} \times \left(-\frac{1}{2}\right) =$ _____

Multiplication and Division with Rational Numbers—Skills Practice

Name: _____

Multiply rational numbers. **Form B**

1 $\frac{1}{4} \times \left(-\frac{3}{4}\right) =$ _____

2 $5 \times (-2) \times 6 \times (-3) =$ _____

3 $-0.3 \times (-0.2) =$ _____

4 $-\frac{1}{3} \times \frac{2}{3} =$ _____

5 $-3 \times (-8) =$ _____

6 $-9 \times 6 =$ _____

7 $0.3 \times (-0.05) \times 0.6 =$ _____

8 $-0.4 \times 0.04 =$ _____

9 $9 \times (-9) =$ _____

10 $-\frac{2}{5} \times \frac{1}{5} \times \frac{3}{5} =$ _____

11 $-\frac{7}{8} \times \left(-\frac{3}{8}\right) =$ _____

12 $-0.2 \times 0.4 \times 0.6 =$ _____

13 $0.9 \times (-0.5) =$ _____

14 $-2 \times (-4) \times (-8) =$ _____

15 $-7 \times (-3) =$ _____

16 $-16 \times 10 =$ _____

17 $-\frac{5}{6} \times \frac{2}{5} \times \left(-\frac{1}{8}\right) =$ _____

18 $100 \times (-7) =$ _____

19 $-5 \times (-7) =$ _____

20 $9 \times (-8) =$ _____

21 $-\frac{1}{5} \times \left(-\frac{1}{2}\right) =$ _____

22 $-0.4 \times 0.1 \times (-0.3) \times (-0.5) =$ _____

23 $-\frac{1}{2} \times \frac{3}{2} \times \left(-\frac{3}{2}\right) \times \left(-\frac{1}{2}\right) =$ _____

24 $0.5 \times -0.2 \times (-2) \times 5 =$ _____

Multiplication and Division with Rational Numbers—Skills Practice

Name: _____

Divide rational numbers.

Form A

1 $-\frac{1}{3} \div \left(-\frac{1}{6}\right) =$ _____

2 $56 \div (-8) =$ _____

3 $-3.6 \div 0.1 =$ _____

4 $-\frac{1}{2} \div \frac{1}{8} =$ _____

5 $-44 \div (-4) =$ _____

6 $-9.8 \div (-1) =$ _____

7 $\frac{1}{6} \div \left(-\frac{1}{6}\right) =$ _____

8 $6.4 \div (-2) =$ _____

9 $35 \div (-5) =$ _____

10 $-\frac{3}{4} \div \left(-\frac{1}{2}\right) =$ _____

11 $-90 \div 9 =$ _____

12 $\frac{2}{5} \div \left(-\frac{2}{3}\right) =$ _____

13 $-8.9 \div 10 =$ _____

14 $-36 \div (-3) =$ _____

15 $-24 \div (-0.2) =$ _____

16 $-\frac{5}{3} \div \frac{5}{6} =$ _____

17 $-100 \div (-50) =$ _____

18 $5.5 \div (-0.5) =$ _____

19 $\frac{1}{8} \div \left(-\frac{1}{5}\right) =$ _____

20 $-7.5 \div (-2.5) =$ _____

21 $-32 \div 4 =$ _____

22 $-3.6 \div 1.2 =$ _____

23 $-42 \div (-6) =$ _____

24 $-\frac{1}{3} \div \left(-\frac{1}{3}\right) =$ _____

Multiplication and Division with Rational Numbers—Skills Practice

Name: _____

Divide rational numbers.

Form B

1 $-32 \div 8 =$ _____

2 $-\frac{1}{4} \div \left(-\frac{1}{8}\right) =$ _____

3 $-4.8 \div 0.1 =$ _____

4 $-\frac{1}{2} \div \frac{1}{6} =$ _____

5 $\frac{1}{5} \div \left(-\frac{1}{5}\right) =$ _____

6 $-7.6 \div (-1) =$ _____

7 $-66 \div (-6) =$ _____

8 $8.2 \div (-2) =$ _____

9 $56 \div (-7) =$ _____

10 $-\frac{5}{6} \div \left(-\frac{1}{2}\right) =$ _____

11 $-48 \div (-4) =$ _____

12 $\frac{3}{8} \div \left(-\frac{3}{5}\right) =$ _____

13 $-5.4 \div 10 =$ _____

14 $-70 \div 7 =$ _____

15 $7.5 \div (-2.5) =$ _____

16 $-\frac{5}{2} \div \frac{5}{8} =$ _____

17 $-100 \div (-25) =$ _____

18 $2.5 \div (-0.5) =$ _____

19 $\frac{1}{5} \div \left(-\frac{1}{3}\right) =$ _____

20 $-39 \div (-0.3) =$ _____

21 $30 \div (-5) =$ _____

22 $3.2 \div (-8) =$ _____

23 $-4.8 \div 1.2 =$ _____

24 $\frac{1}{4} \div \left(-\frac{1}{5}\right) =$ _____

Expressing Rational Numbers as Decimals—Skills Practice

Name: _____

Write fractions as decimals. **Form A**

1 $-\frac{4}{5} =$ _____

2 $-\frac{1}{2} =$ _____

3 $-\frac{5}{9} =$ _____

4 $-\frac{2}{3} =$ _____

5 $-\frac{2}{9} =$ _____

6 $\frac{2}{5} =$ _____

7 $\frac{9}{2} =$ _____

8 $\frac{5}{3} =$ _____

9 $-\frac{7}{5} =$ _____

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

11 $-\frac{10}{9} =$ _____

12 $\frac{3}{2} =$ _____

13 $\frac{7}{2} =$ _____

14 $-\frac{8}{5} =$ _____

15 $\frac{5}{6} =$ _____

16 $-\frac{11}{4} =$ _____

17 $\frac{5}{12} =$ _____

18 $\frac{7}{6} =$ _____

19 $-\frac{5}{8} =$ _____

20 $\frac{5}{4} =$ _____

21 $\frac{9}{8} =$ _____

Expressing Rational Numbers as Decimals—Skills Practice

Name: _____

Write fractions as decimals.

Form B

1 $-\frac{1}{2} =$ _____

2 $\frac{3}{5} =$ _____

3 $-\frac{7}{9} =$ _____

4 $-\frac{1}{5} =$ _____

5 $-\frac{1}{3} =$ _____

6 $\frac{2}{9} =$ _____

7 $\frac{7}{3} =$ _____

8 $-\frac{9}{5} =$ _____

9 $-\frac{3}{4} =$ _____

10 $-\frac{9}{2} =$ _____

11 $-\frac{6}{5} =$ _____

12 $-\frac{7}{2} =$ _____

13 $-\frac{3}{2} =$ _____

14 $\frac{1}{6} =$ _____

15 $\frac{11}{9} =$ _____

16 $\frac{11}{6} =$ _____

17 $-\frac{9}{4} =$ _____

18 $-\frac{3}{8} =$ _____

19 $-\frac{9}{8} =$ _____

20 $\frac{7}{12} =$ _____

21 $\frac{7}{4} =$ _____

Expressing Rational Numbers as Decimals—Repeated Reasoning

Name: _____

Find patterns with repeating decimals. Write each fraction or fraction sum as a repeating decimal.

Set A

1. $\frac{1}{3} =$ _____
2. $\frac{2}{3} =$ _____
3. $\frac{4}{3} =$ _____
4. $\frac{5}{3} =$ _____
5. $\frac{7}{3} =$ _____
6. $\frac{8}{3} =$ _____
7. $\frac{10}{3} =$ _____
8. $\frac{11}{3} =$ _____
9. $\frac{13}{3} =$ _____
10. $\frac{14}{3} =$ _____

Set B

1. $\frac{1}{6} =$ _____
2. $\frac{2}{6} =$ _____
3. $\frac{3}{6} =$ _____
4. $\frac{1}{6} + \frac{3}{6} =$ _____
5. $\frac{2}{6} + \frac{2}{6} =$ _____
6. $\frac{4}{6} =$ _____
7. $\frac{2}{6} + \frac{3}{6} =$ _____
8. $\frac{1}{6} + \frac{4}{6} =$ _____
9. $\frac{5}{6} =$ _____

Describe a pattern you see in one of the sets of problems above.

_____

_____

_____

Expressing Rational Numbers as Decimals—Repeated Reasoning

Name: _____

Find more patterns with repeating decimals. Write each fraction as a decimal.

Set A

1. $\frac{1}{9} =$ _____
2. $\frac{2}{9} =$ _____
3. $\frac{3}{9} =$ _____
4. $\frac{4}{9} =$ _____
5. $\frac{5}{9} =$ _____
6. $\frac{6}{9} =$ _____
7. $\frac{10}{9} =$ _____
8. $\frac{11}{9} =$ _____
9. $\frac{12}{9} =$ _____

Set B

1. $\frac{1}{11} =$ _____
2. $\frac{2}{11} =$ _____
3. $\frac{3}{11} =$ _____
4. $\frac{4}{11} =$ _____
5. $\frac{5}{11} =$ _____
6. $\frac{6}{11} =$ _____
7. $\frac{7}{11} =$ _____
8. $\frac{8}{11} =$ _____
9. $\frac{9}{11} =$ _____

Describe a pattern you see in one of the sets of problems above.

_____

_____

_____

Using Properties of Operations—Skills Practice

Name: _____

Write an equivalent expression without parentheses, and combine terms if possible. **Form A**

1 $5x + 6x =$ _____

2 $6n - 3(2n - 5) =$ _____

3 $0.5(-12p - 4) =$ _____

4 $\frac{1}{4}y + \frac{3}{4}(y - 8) =$ _____

5 $4(x - 6) + 30 =$ _____

6 $-8\left(m + \frac{1}{4}\right) =$ _____

7 $-8x - 4x + 3x + 2 =$ _____

8 $4.5a + 7 + 3.5a + 2 =$ _____

9 $-4 + 7y - 3y - 5 =$ _____

10 $\frac{1}{6}(12n + 36) =$ _____

11 $3(y + 7) - 5y =$ _____

12 $9y - 4x + 3y + 4x =$ _____

13 $8(6a + 7) =$ _____

14 $\frac{1}{6}y + 6 - \frac{7}{6}y - 4 =$ _____

15 $\frac{3}{2}x - \frac{1}{2}(x + 4) =$ _____

16 $6 + 2x + 4(x + 5) =$ _____

17 $-8(x + 3) =$ _____

18 $3y + 3(y - 2.5) =$ _____

19 $9\left(-\frac{1}{3}m + 4\right) - 6m =$ _____

20 $6.25m + 9 + 3.75m - 12 =$ _____

Using Properties of Operations—Skills Practice

Name: _____

Write an equivalent expression without parentheses, and combine terms if possible. **Form B**

1 $7x + 6x =$ _____

2 $10n - 5(2n - 5) =$ _____

3 $\frac{5}{4}x - \frac{1}{4}(x + 12) =$ _____

4 $4 + 2x + 7(x + 2) =$ _____

5 $6(x - 7) + 50 =$ _____

6 $-6\left(m + \frac{1}{2}\right) =$ _____

7 $-3 + 8y - 6y - 4 =$ _____

8 $\frac{1}{4}y + 9 - \frac{5}{4}y - 2 =$ _____

9 $9(3a + 8) =$ _____

10 $\frac{1}{8}(16n + 24) =$ _____

11 $-7(x + 4) =$ _____

12 $2y + 3(y - 1.5) =$ _____

13 $-9x - 5x + 6x + 3 =$ _____

14 $2.5a + 5 + 4.5a + 3 =$ _____

15 $15\left(-\frac{1}{5}m + 2\right) - 4m =$ _____

16 $4.25m + 7 + 6.75m - 11 =$ _____

17 $7(y + 7) - 11y =$ _____

18 $8x - 2 - 5x + 2 =$ _____

19 $0.5(-16p - 6) =$ _____

20 $\frac{1}{5}y + \frac{4}{5}(y - 10) =$ _____

Using Properties of Operations—Skills Practice

Name: _____

Use the distributive property to write the expression as a product. **Form A**

1 $7x + 7 =$ _____

2 $6y + 14 - 8y =$ _____

3 $25x - 5 =$ _____

4 $16y + (-4) =$ _____

5 $4 - 8y =$ _____

6 $-8x - 16 =$ _____

7 $-11x - 44 =$ _____

8 $10 + 70x =$ _____

9 $10 - (-4y) =$ _____

10 $-2x + 12 - 4x =$ _____

11 $-25y + (-55) =$ _____

12 $20y - (-5) =$ _____

13 $-21x + 14 =$ _____

14 $18x - 33 =$ _____

15 $4y + 22 + 7y =$ _____

16 $-7 + (-21x) =$ _____

17 $6 + (-12y) =$ _____

18 $-5x + 33 + 16x =$ _____

19 $15y - 35 =$ _____

20 $-40y + 100 =$ _____

Using Properties of Operations—Skills Practice

Name: _____

Use the distributive property to write the expression as a product. **Form B**

1 $8x + 8 =$ _____

2 $8y + 20 - 12y =$ _____

3 $5y + 33 + 6y =$ _____

4 $-5x + 18 - 4x =$ _____

5 $6 - 18y =$ _____

6 $-9x - 18 =$ _____

7 $-9 + (-27x) =$ _____

8 $20 - (-6y) =$ _____

9 $-24x + 18 =$ _____

10 $16x - 44 =$ _____

11 $4 + (-16y) =$ _____

12 $3 + 39x =$ _____

13 $-4x + 28 + 11x =$ _____

14 $30y - (-6) =$ _____

15 $-11x - 66 =$ _____

16 $20 + 80x =$ _____

17 $25y - 45 =$ _____

18 $36x - 6 =$ _____

19 $-60y + 90 =$ _____

20 $24y + (-3) =$ _____

Two-Step Equations—Skills Practice

Name: _____

Solve equations of form $px + q = r$ with integers. **Form A**

1 $6x + 6 = 0$

2 $-3x + 9 = 6$

3 $5x + 4 = -6$

4 $-275 = 25x - 50$

5 $90 = 20x - 10$

6 $46 = 3x + 19$

7 $-15x - 45 = -45$

8 $12x - 14 = -38$

9 $97 = 10x + 27$

10 $-6x - 13 = 35$

11 $-127 = -50x + 23$

12 $8x + 5 = -3$

13 $7x + 4 = -38$

14 $-4x - 52 = -152$

15 $-8 = -6x - 2$

16 $-25 = 10x - 25$

Two-Step Equations—Skills Practice

Name: _____

Solve equations of form $px + q = r$ with integers. **Form B**

1 $-4x + 12 = 8$

2 $8x + 8 = 0$

3 $5x + 6 = -14$

4 $-250 = 25x - 75$

5 $30 = 20x - 10$

6 $38 = 3x + 17$

7 $11x - 16 = -49$

8 $-18x - 36 = -36$

9 $86 = 10x + 26$

10 $-8x - 11 = 45$

11 $-164 = -50x + 36$

12 $0 = 12x - 12$

13 $-12 = -9x - 3$

14 $9x + 7 = -2$

15 $-8x + 23 = 103$

16 $-6x + 53 = 5$

Two-Step Equations—Skills Practice

Name: _____

Solve equations of form $px + q = r$ with rational numbers. **Form A**

1 $-3x + 6 = 9.9$

2 $8\frac{3}{5} = -4x + 5\frac{3}{5}$

3 $1.2x + 5.3 = 0.5$

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

5 $7 = 11 - 0.2x$

6 $0.4x + 15 = 39.8$

7 $1\frac{3}{8} = \frac{1}{4}x + 1$

8 $\frac{2}{3}x - 4 = 36$

9 $\frac{1}{5} = \frac{7}{5} - \frac{1}{10}x$

10 $-8.2 = -7.1 + 11x$

11 $-13\frac{3}{4} = -\frac{7}{10}x + \frac{1}{4}$

12 $\frac{1}{8}x + \frac{3}{4} = \frac{1}{4}$

13 $-5.6x + 8.8 = 3.2$

14 $8x - 4\frac{2}{3} = 19\frac{1}{3}$

Two-Step Equations—Skills Practice

Name: _____

Solve equations of form $px + q = r$ with rational numbers. **Form B**

1 $-4x + 8 = 12.8$

2 $3\frac{1}{6} = -5x + 1\frac{1}{6}$

3 $-35\frac{1}{4} = -\frac{9}{10}x + \frac{3}{4}$

4 $9 = 18 - 0.3x$

5 $-4.2x + 9.5 = 5.3$

6 $6x - 12\frac{1}{3} = 23\frac{2}{3}$

7 $-9.4 = -8.6 + 8x$

8 $\frac{1}{4}x + \frac{7}{8} = \frac{3}{8}$

9 $-0.25x - 8.5 = 2.5$

10 $-14.5 = 0.5x - 14.5$

11 $1\frac{5}{6} = \frac{1}{2}x + 1$

12 $\frac{3}{4}x - 6 = 54$

13 $0.2x + 21 = 49.6$

14 $0.1x + 4.75 = -1.5$

Two-Step Equations—Skills Practice

Name: _____

Solve equations of form $p(x + q) = r$ with integers. **Form A**

1 $6(x + 4) = 36$

2 $21 = 7(x + 3)$

3 $56 = -8(x + 9)$

4 $2(x - 6) = -26$

5 $-4(x - 5) = -44$

6 $5(x + 4) = 35$

7 $-6(x - 12) = 48$

8 $-9 = -9(x + 4)$

9 $10(x - 15) = -70$

10 $-2(x - 13) = 18$

11 $-36 = 12(x + 7)$

12 $-7(x + 7) = 49$

13 $3(x - 6) = 24$

14 $-24 = 4(x - 6)$

15 $-11(x + 2) = -66$

16 $8(x - 14) = 64$

Two-Step Equations—Skills Practice

Name: _____

Solve equations of form $p(x + q) = r$ with integers. **Form B**

1 $8(x + 4) = 32$

2 $24 = 4(x + 7)$

3 $-9(x + 5) = 54$

4 $-5(x - 6) = -15$

5 $-12 = -3(x - 7)$

6 $10(x + 15) = 40$

7 $2(x - 4) = 22$

8 $-7(x + 8) = -7$

9 $-11(x - 12) = -77$

10 $5(x - 16) = 45$

11 $25(x - 14) = -75$

12 $42 = -6(x + 9)$

13 $9(x + 8) = 63$

14 $-8(x + 8) = -48$

15 $-12 = 3(x - 4)$

16 $-2(x + 12) = 24$

Two-Step Equations—Skills Practice

Name: _____

Solve equations of form $p(x + q) = r$ with rational numbers. **Form A**

1 $-\frac{1}{8}(x + 6) = \frac{1}{8}$

2 $0.25(p + 8) = 2$

3 $-0.2(w - 6) = -4$

4 $\frac{2}{5}(y + 5) = \frac{4}{5}$

5 $-6.9 = 3(x + 4.6)$

6 $-25(p - 7) = -2.5$

7 $\frac{1}{3} = \frac{1}{6}(m - 9)$

8 $4.5 = 5(x + 3)$

9 $10(x - 24.2) = 50$

10 $\frac{1}{4}(n + 2) = -\frac{5}{2}$

11 $11(x - 0.4) = 44$

12 $20 = \frac{5}{6}(m + 8)$

13 $-\frac{1}{5}(y + 2) = 4$

14 $7.6 = 2(n + 5.7)$

Two-Step Equations—Skills Practice

Name: _____

Solve equations of form $p(x + q) = r$ with rational numbers. **Form B**

1 $-\frac{1}{4}(x + 7) = \frac{1}{4}$

2 $-0.2(p - 4) = -2$

3 $0.5(w + 10) = 5$

4 $\frac{3}{8}(y + 9) = \frac{3}{4}$

5 $-8.4 = 4(x + 6.3)$

6 $-75(p - 6) = -7.5$

7 $\frac{1}{4} = \frac{1}{8}(m - 7)$

8 $3.5 = 5(x + 4)$

9 $10(x - 31.4) = 40$

10 $\frac{1}{6}(n + 5) = -\frac{4}{3}$

11 $11(x - 0.6) = 66$

12 $15 = \frac{3}{5}(m + 6)$

13 $-\frac{1}{4}(y + 5) = 3$

14 $9.4 = 2(n + 6.5)$

Two-Step Equations—Repeated Reasoning

Name: _____

Find patterns in two-step equations of form $px + q = r$. Solve each equation.

Set A

1 $2x + 3 = 19; x =$ _____ **2** $2x + 3 = 20; x =$ _____ **3** $2x + 3 = 21; x =$ _____

4 $4x + 3 = 19; x =$ _____ **5** $4x + 3 = 20; x =$ _____ **6** $4x + 3 = 21; x =$ _____

7 $8x + 3 = 19; x =$ _____ **8** $8x + 3 = 20; x =$ _____ **9** $8x + 3 = 21; x =$ _____

Set B

1 $0.25x - 3 = 2; x =$ _____ **2** $0.25x - 4 = 2; x =$ _____ **3** $0.25x - 5 = 2; x =$ _____

4 $0.5x - 3 = 2; x =$ _____ **5** $0.5x - 4 = 2; x =$ _____ **6** $0.5x - 5 = 2; x =$ _____

7 $x - 3 = 2; x =$ _____ **8** $x - 4 = 2; x =$ _____ **9** $x - 5 = 2; x =$ _____

Describe a pattern you see in one of the sets of problems above.

_____

_____

_____

Two-Step Equations—Repeated Reasoning

Name: _____

Find patterns in two-step equations of form $p(x + q) = r$. Solve each equation.

Set A

1 $3(x + 3) = 30; x =$ _____ **2** $3(x + 4) = 30; x =$ _____ **3** $3(x + 5) = 30; x =$ _____

4 $3(x + 6) = 30; x =$ _____ **5** $3(x + 7) = 30; x =$ _____ **6** $3(x + 8) = 30; x =$ _____

7 $3(x + 9) = 30; x =$ _____ **8** $3(x + 10) = 30; x =$ _____ **9** $3(x + 11) = 30; x =$ _____

Set B

1 $3(x - 2) = 18; x =$ _____ **2** $3(x - 3) = 18; x =$ _____ **3** $3(x - 4) = 18; x =$ _____

4 $3(x - 5) = 18; x =$ _____ **5** $3(x - 6) = 18; x =$ _____ **6** $3(x - 7) = 18; x =$ _____

7 $3(x - 8) = 18; x =$ _____ **8** $3(x - 9) = 18; x =$ _____ **9** $3(x - 10) = 18; x =$ _____

Describe a pattern you see in one of the sets of problems above.

_____

_____

_____

Two-Step Inequalities—Skills Practice

Name: _____

Solve inequalities with integers.

Form A

1 $3(m - 4) < 27$

2 $-13 < 4x + 7$

3 $-2x + 7 < 19$

4 $-45 < 5(p - 2)$

5 $21 < -7(x - 2)$

6 $-9x + 10 > -8$

7 $42 > 6(m + 10)$

8 $10(n - 11) > -60$

9 $-97 < -11x - 9$

10 $25x - 9 < -109$

11 $36 < 12(w + 1)$

12 $-130 > 50x + 20$

13 $-8(x - 3) < -40$

14 $2x - 22 > -8$

15 $-35 < -5(x + 9)$

Two-Step Inequalities—Skills Practice

Name: _____

Solve inequalities with integers.

Form B

1 $12(w - 3) > 60$

2 $-5x + 15 > -30$

3 $-22 < 11x - 77$

4 $-75 > 25(m - 1)$

5 $-32 > -8(x - 7)$

6 $10x - 4 < -84$

7 $40 < 4(n + 14)$

8 $-7x - 3 < -45$

9 $9(y - 16) < -63$

10 $8 < -2(x - 3)$

11 $50x + 6 > -94$

12 $33 > 3(p + 7)$

13 $6 > 8x + 30$

14 $-11(x + 7) < -88$

15 $5x - 18 < 17$

Two-Step Inequalities—Skills Practice

Name: _____

Solve inequalities with rational numbers.

Form A

1 $0.5x + 0.3 < -0.7$

2 $\frac{1}{4}(m + 8) > \frac{1}{2}$

3 $4 < -0.2x + 7$

4 $-9 < -0.1(y - 5)$

5 $-\frac{5}{8}x + 6 < 5$

6 $-\frac{1}{6}(x - 24) < 4$

7 $1.2m + 6.3 < 1.5$

8 $0.5 < 0.25(p + 8)$

9 $2.5n - 4.5 < 0.5$

10 $-2\left(y - \frac{1}{4}\right) > -\frac{1}{2}$

11 $-\frac{1}{4}x + 2\frac{1}{4} < 2$

12 $0.8x + 0.6 < 0.6$

13 $-\frac{3}{4} > \frac{1}{8}(n + 24)$

14 $4 > -\frac{1}{2}x - 5$

Two-Step Inequalities—Skills Practice

Name: _____

Solve inequalities with rational numbers.

Form B

1 $0.2x + 0.4 < -0.6$

2 $\frac{1}{8}(m + 16) > \frac{1}{2}$

3 $-\frac{1}{10}(x - 20) > 2$

4 $-\frac{2}{3} > \frac{1}{6}(n + 12)$

5 $0.9x + 0.7 > 0.7$

6 $-\frac{3}{4}x + 7 < 6$

7 $8 > -\frac{1}{2}x - 3$

8 $2.5n - 5.5 < 2$

9 $-4\left(y - \frac{1}{8}\right) > -\frac{1}{2}$

10 $\frac{5}{6}x + 7 < 12$

11 $-4.9x + 2.7 < 7.6$

12 $-\frac{1}{5}x + 3\frac{1}{5} > 3$

13 $9.4 < 8x + 3.8$

14 $1.1m + 5.1 < 2.9$

Two-Step Inequalities—Repeated Reasoning

Name: _____

Find patterns in two-step inequalities. Solve each inequality.

Set A

1 $3(x + 1) > 6$; x _____

2 $-3(x + 1) > -6$; x _____

3 $3(x + 1) > 3$; x _____

4 $-3(x + 1) > -3$; x _____

5 $3(x + 1) > 0$; x _____

6 $-3(x + 1) > 0$; x _____

Set B

1 $4(x + 2) > 12$; x _____

2 $-4(x + 2) > -12$; x _____

3 $4(x + 3) > 12$; x _____

4 $-4(x + 3) > -12$; x _____

5 $4(x + 4) > 12$; x _____

6 $-4(x + 4) > -12$; x _____

Describe a pattern you see in one of the sets of problems above.

_____

_____

_____

_____

Two-Step Inequalities—Repeated Reasoning

Name: _____

Find more patterns in two-step inequalities. Solve each inequality.

Set A

1 $2x + 2 > -4$; x _____

2 $-2x + 2 > -4$; x _____

3 $3x + 2 > -4$; x _____

4 $-3x + 2 > -4$; x _____

5 $4x + 2 > -4$; x _____

6 $-4x + 2 > -4$; x _____

Set B

1 $0.5x - 2 > -3$; x _____

2 $-0.5x - 2 > -3$; x _____

3 $0.5x - 3 > -3$; x _____

4 $-0.5x - 3 > -3$; x _____

5 $0.5x - 4 > -3$; x _____

6 $-0.5x - 4 > -3$; x _____

Describe a pattern you see in one of the sets of problems above.

_____

_____

_____