Fluency Table of Contents

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.

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 $-4 - (-8) - 4 - (-12) - 8 =$ _____

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

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

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

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

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

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

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

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

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

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

19 $-10 \times 14 =$ _____

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

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

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

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

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

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

Divide rational numbers.

Form A

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

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

3 $-3.6 \div 0.1 =$ _____

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

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

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

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

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

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

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

11 $-90 \div 9 =$ _____

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

13 $-8.9 \div 10 =$ _____

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

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

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

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

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

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

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

21 $-32 \div 4 =$ _____

22 $-3.6 \div 1.2 =$ _____

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

24 $-\dfrac{1}{3} \div \left(-\dfrac{1}{3}\right) =$ _____
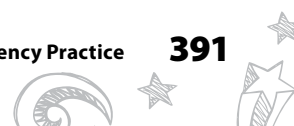
Multiplication and Division with Rational Numbers—Skills Practice

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

Name: _____

Write fractions as decimals.

Form A

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Expressing Rational Numbers as Decimals—Skills Practice

Write fractions as decimals. **Form B**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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 $\dfrac{1}{9} =$ _____

2 $\dfrac{2}{9} =$ _____

3 $\dfrac{3}{9} =$ _____

4 $\dfrac{4}{9} =$ _____

5 $\dfrac{5}{9} =$ _____

6 $\dfrac{6}{9} =$ _____

7 $\dfrac{10}{9} =$ _____

8 $\dfrac{11}{9} =$ _____

9 $\dfrac{12}{9} =$ _____

Set B

1 $\dfrac{1}{11} =$ _____

2 $\dfrac{2}{11} =$ _____

3 $\dfrac{3}{11} =$ _____

4 $\dfrac{4}{11} =$ _____

5 $\dfrac{5}{11} =$ _____

6 $\dfrac{6}{11} =$ _____

7 $\dfrac{7}{11} =$ _____

8 $\dfrac{8}{11} =$ _____

9 $\dfrac{9}{11} =$ _____

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

Fluency Practice

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

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 $-40y + 100 =$ _____

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.

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.

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 $-9.4 = -8.6 + 8x$

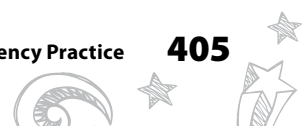**8** $\frac{1}{4}x + \frac{7}{8} = \frac{3}{8}$

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 $0.1x + 4.75 = -1.5$

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

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.

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

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 $3.5 = 5(x + 4)$

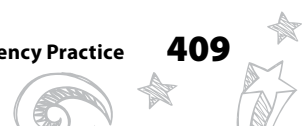**9** $10(x - 31.4) = 40$

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.

_____

_____

_____

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.

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 $1.1m + 5.1 < 2.9$

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.

_____

_____

_____

_____

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.

_____

_____

_____