Fluency Table of Contents

	Page		Page
Compute with Percents Skills Practice (Forms A and B) Find the percent.	352	Repeated Reasoning Find patterns in multiplying decimals	373
Use the part and the percent to find the whole	354	Divide Decimals Skills Practice (Forms A and B)	
Repeated Reasoning Find patterns in percents	356	Divide	374
Find place value patterns	357	Repeated Reasoning Compare dividends and quotients to	
Find patterns using the distributive property.	358	find patterns Greatest Common Factors and	376
Divide Fractions Skills Practice (Forms A and B) Find the quotient.	359	Least Common Multiples Skills Practice (Forms A and B) Find the greatest common factor	377
Repeated Reasoning Find patterns in fraction division	361	Find the least common multiple Exponents	379
Divide Whole Numbers Skills Practice (Forms A and B) Find the quotient.	362	Skills Practice (Forms A and B) Evaluate the expression	381
Repeated Reasoning Find place value patterns	364	Look for patterns in expressions with exponents.	383
Add Decimals Skills Practice (Forms A and B) Add	365	Order of Operations Skills Practice (Forms A and B) Evaluate the expression.	384
Repeated Reasoning Use patterns and mental math to add	367	Evaluate Expressions with Variables Skills Practice (Forms A and B)	
Subtract Decimals Skills Practice (Forms A and B) Subtract.	368	Evaluate the expression Equivalent Expressions Skills Practice (Forms A and B)	380
Repeated Reasoning Use patterns and mental math		Use the distributive property to write an equivalent expression.	388
to subtract		Solving Equations Skills Practice (Forms A and B) Solve the equation.	390

Find the percent.

Form A

Compute with Percents—Skills Practice

Name: _____

Find the percent.

Form B

353

Use the part and the percent to find the whole.

Form A

Compute with Percents—Skills Practice

Name: _____

Use the part and the percent to find the whole.

Form B

Find patterns in percents.

Set A

Set B

Compute with Percents— Repeated Reasoning

Name: _____

Find place value patterns.

Set A

Set B

Find patterns using the distributive property.

Set A

Set B

Divide Fractions—Skills Practice

Name: _____

Find the quotient.

1
$$\frac{2}{3} \div \frac{3}{6} =$$

$$\frac{1}{2} \div \frac{1}{6} = \underline{\hspace{1cm}}$$

$$\frac{2}{2} \div \frac{5}{6} = \underline{\hspace{1cm}}$$

$$\frac{1}{4} \div \frac{1}{6} = \underline{\hspace{1cm}}$$

$$\frac{2}{4} \div \frac{3}{6} =$$

6
$$\frac{7}{4} \div \frac{3}{2} =$$

$$\frac{8}{5} \div \frac{4}{10} =$$

$$\frac{2}{3} \div \frac{5}{6} = \underline{\hspace{1cm}}$$

9
$$\frac{5}{8} \div \frac{3}{4} =$$

10
$$\frac{5}{4} \div \frac{10}{12} =$$

11
$$\frac{4}{6} \div \frac{3}{6} =$$

12
$$\frac{5}{4} \div \frac{1}{8} =$$

13
$$\frac{1}{8} \div \frac{5}{4} =$$

14
$$\frac{3}{2} \div \frac{6}{5} =$$

15
$$\frac{9}{4} \div \frac{3}{2} =$$

16
$$\frac{3}{10} \div \frac{6}{5} =$$

17
$$\frac{6}{4} \div \frac{2}{8} =$$

18
$$\frac{4}{8} \div \frac{5}{5} =$$

Find the quotient.

Form B

1
$$\frac{7}{4} \div \frac{1}{2} =$$

$$\frac{2}{3} \div \frac{2}{3} = \underline{\hspace{1cm}}$$

$$\frac{5}{6} \div \frac{4}{12} = \underline{\hspace{1cm}}$$

$$\frac{8}{10} \div \frac{2}{5} = \underline{\hspace{1cm}}$$

6
$$\frac{5}{6} \div \frac{2}{3} =$$

$$\frac{1}{10} \div \frac{1}{5} = \underline{\hspace{1cm}}$$

$$\frac{3}{5} \div \frac{2}{3} = \underline{\hspace{1cm}}$$

9
$$\frac{5}{3} \div \frac{4}{4} =$$

10
$$\frac{4}{3} \div \frac{8}{6} =$$

11
$$\frac{6}{12} \div \frac{1}{3} =$$

12
$$\frac{3}{8} \div \frac{9}{4} =$$

13
$$\frac{3}{10} \div \frac{2}{5} =$$

14
$$\frac{6}{6} \div \frac{4}{3} =$$

15
$$\frac{10}{4} \div \frac{5}{6} =$$

16
$$\frac{2}{6} \div \frac{2}{5} =$$

17
$$\frac{6}{5} \div \frac{3}{10} =$$

18
$$\frac{1}{5} \div \frac{1}{3} =$$

Divide Fractions—Repeated Reasoning

Name: _____

Find patterns in fraction division.

Set A

1
$$\frac{1}{2} \div \frac{1}{2} =$$

$$\frac{1}{2} \div \frac{1}{4} = \underline{\hspace{1cm}}$$

7
$$\frac{1}{2} \div \frac{1}{16} =$$

$$2 \frac{3}{2} \div \frac{1}{2} = \underline{\hspace{1cm}}$$

4
$$\frac{3}{2} \div \frac{1}{4} =$$

6
$$\frac{3}{2} \div \frac{1}{8} =$$

$$\frac{3}{2} \div \frac{1}{16} = \underline{\hspace{1cm}}$$

Set B

1
$$\frac{1}{2} \div \frac{1}{4} =$$

$$\frac{1}{2} \div \frac{2}{4} = \underline{\hspace{1cm}}$$

7
$$\frac{1}{2} \div \frac{4}{4} =$$

$$2 \frac{3}{2} \div \frac{1}{4} = \underline{\hspace{1cm}}$$

4
$$\frac{3}{2} \div \frac{2}{4} =$$

6
$$\frac{3}{2} \div \frac{3}{4} =$$

$$8 \ \frac{3}{2} \div \frac{4}{4} = \underline{\hspace{1cm}}$$

Find the quotient.

Form A

1 61)793

2 25)675

3 46)506

4 30)510

5 41)328

6 80)5,680

7 35)2,170

8 22)7,040

9 72)7,488

10 63)53,865

11 75)72,525

12 40)9,240

13 44)54,164

14 15)15,810

15 12)17,472

Divide Whole Numbers—Skills Practice

Name: _

Find the quotient. Form B

1 45)4,410

2 25)475

3 21)189

4 81)972

5 20)960

6 54)702

7 60)8,520

8 33)8,580

9 70)3,570

10 64)47,616

11 14)14,168

12 15)18,945

13 66)89,958

14 75)62,025

15 76)8,208

Find place value patterns.

Set A

Set B

Add Decimals—Skills Practice

Name: _____

Add.

Form A

Add.

Form B

Add Decimals—Repeated Reasoning

Name:

Use patterns and mental math to add.

Set A

Set B

7
$$2.009 + 0.001 =$$
 8 $2.010 + 0.001 =$ **9** $2.011 + 0.001 =$

Subtract. Form A

1
$$0.09 - 0.072 =$$

Subtract Decimals—Skills Practice

Name: _____

Subtract. Form B

Use patterns and mental math to subtract.

Set A

Set B

1
$$20 - 0.01 =$$
 2 $20 - 0.02 =$

Multiply Decimals—Skills Practice

Name: _____

Multiply. Form A

Multiply. Form B

372

Multiply Decimals—Repeated Reasoning

Name:

Find patterns in multiplying decimals.

Set A

1
$$0.1 \times 0.3 =$$

$$0.2 \times 0.3 =$$

5
$$0.4 \times 0.3 =$$

4
$$0.2 \times 0.6 =$$

6
$$0.4 \times 0.6 =$$

8
$$0.8 \times 0.6 =$$

Set B

11
$$0.345$$
 $\times 0.05$

Divide. Form A

- 0.08)3.84
- 2 0.16)6.08
- 3 5.9)2.183
- 4 112.5)7.2

- 5 614.5)3.687
- 6 2.68)9.648
- 7 5.9)10.62
- 8 2.6)137.8

- 9 1.486)66.87
- 10 2.357)68.353
- 11 2.85)267.9
- 12 0.368)33.856

- 13 1.125)240.3
- 14 0.3)8.37
- 15 0.008)2.3
- 16 0.36)0.621

Divide. Form B

- 1 0.04)2.24
- 2 0.18)7.56
- 3 0.9)3.69
- **4** 5.6)5.152

- 5 114.5)3.206
- 6 2.8)16.52
- 7 2.56)8.192
- 8 217.5)18.27

- 9 812.5)6.5
- 10 1.276)82.94
- **11** 6.95)375.3
- 12 3.689)99.603

- **13** 3.225)566.31
- 14 56.25)7.2
- 15 0.734)60.922
- 16 0.8)0.856

Compare dividends and quotients to find patterns.

Set A

Set B

1
$$1 \div 0.2 =$$
 _____ 2 $2 \div 0.2 =$ _____ 3 $3 \div 0.2 =$ _____

4
$$10 \div 0.2 =$$
 _____ 6 $30 \div 0.2 =$ ____

Greatest Common Factors—Skills Practice

Name: _____

Find the greatest common factor.

Form A

1 24 and 20: _____

2 36 and 42: _____

3 16 and 32: _____

4 12 and 8: _____

5 80 and 70: _____

6 50 and 14: _____

7 100 and 75: _____

8 15 and 18: _____

9 14 and 21: _____

10 40 and 60:

11 25 and 45: _____

12 33 and 77: _____

13 36 and 81: _____

14 64 and 40: _____

15 35 and 28: _____

16 17 and 34: _____

17 15 and 28: _____

18 3 and 69: _____

19 18 and 28:

20 27 and 63: _____

21 20 and 45: _____

22 54 and 24:

23 18 and 45:

24 72 and 64: _____

Find the greatest common factor.

Form B

1 21 and 28: _____

2 50 and 75: _____

3 15 and 30: _____

4 6 and 9: _____

5 60 and 80: _____

6 16 and 40: _____

7 30 and 48: _____

8 12 and 18: _____

9 16 and 24: _____

10 40 and 90: _____

11 44 and 24: _____

12 26 and 16: _____

13 12 and 25: _____

14 7 and 42: _____

15 35 and 55: _____

16 44 and 99: _____

17 27 and 72: _____

18 13 and 39: _____

19 45 and 81: _____

20 40 and 25: _____

21 20 and 42: _____

22 120 and 70: _____

23 22 and 77: _____

24 72 and 63: _____

Least Common Multiples—Skills Practice

Name: _____

Find the least common multiple.

Form A

1 4 and 7: _____

2 5 and 6: _____

3 and 8: _____

4 and 6: _____

5 6 and 9: _____

6 10 and 6: _____

7 2 and 8: _____

8 3 and 4: _____

9 5 and 7: _____

10 8 and 9: _____

11 12 and 8: _____

12 8 and 10: _____

13 9 and 7: _____

14 2 and 11: _____

15 6 and 12: _____

16 11 and 9: _____

17 9 and 4: _____

18 3 and 6: _____

19 5 and 9:

20 11 and 8: _____

21 10 and 5: _____

22 13 and 39:

23 4 and 16:

24 7 and 6: _____

Find the least common multiple.

Form B

1 4 and 5: _____

2 2 and 6: _____

3 and 11: _____

4 7 and 6: _____

5 12 and 9: _____

6 10 and 12: _____

7 8 and 12: _____

8 5 and 8: _____

9 3 and 5: _____

10 4 and 9: _____

11 10 and 3: _____

12 6 and 4: _____

13 7 and 8: _____

14 2 and 9: _____

15 4 and 11: _____

16 8 and 4: _____

17 3 and 7: _____

18 9 and 3: _____

19 4 and 10: _____

20 5 and 11: _____

21 12 and 2: _____

22 7 and 28: _____

23 8 and 6: _____

24 21 and 3: _____

Exponents—Skills Practice

Name: _____

Evaluate the expression.

Form A

1
$$5^2 =$$

$$3^2 + 7^2 =$$

$$4^2 \times 3^3 =$$

$$2^{3}(4^{3}+6^{2})=\underline{\hspace{1cm}}$$

$$7 4^3 + 5^4 =$$

$$8 \frac{9^2 - 7^2}{2^4} = \underline{\hspace{1cm}}$$

10
$$3^5 + 2^7 =$$

12
$$2^6 - 3^3 =$$

$$13 \frac{10^2 + 3^2}{1^{13}} = \underline{\hspace{1cm}}$$

15
$$\frac{6^2-2^5}{2^2}=$$

16
$$5^3 - 2^3 =$$

17
$$8^2 \times 6^2 =$$

$$\frac{3^3+6^2}{3^2} = \underline{\hspace{1cm}}$$

$$20 \ \frac{10^3}{2^2 + 6^2} = \underline{\hspace{1cm}}$$

Evaluate the expression.

Form B

$$16^2 =$$

$$2 4^2 + 8^2 =$$

$$5^2 \times 3^3 =$$

$$3^2(9^2+2^4)=$$

$$7 5^3 + 3^5 =$$

$$8 \frac{6^2 - 3^2}{3^3} = \underline{\hspace{1cm}}$$

10
$$2^5 + 7^3 =$$

12
$$3^4 - 2^4 =$$

$$\frac{9^2+10^3}{1^{12}}=$$

$$15 \frac{10^2 - 8^2}{3^2} = \underline{\hspace{1cm}}$$

16
$$4^4 - 5^2 =$$

$$7^2 \times 9^2 =$$

$$\frac{6^2+8^2}{5^2} = \underline{\hspace{1cm}}$$

$$20 \ \frac{10^4}{8^2+4^2} = \underline{\hspace{1cm}}$$

Exponents—Repeated Reasoning

Name: _____

Look for patterns in expressions with exponents.

Set A

1
$$10^2 \times 10^1 =$$

$$10^2 \times 10^2 =$$

1
$$10^2 \times 10^1 =$$
 2 $10^2 \times 10^2 =$ 3 $10^2 \times 10^3 =$ _____

4
$$10^3 \times 10^1 =$$

4
$$10^3 \times 10^1 =$$
 _____ 5 $10^3 \times 10^2 =$ _____

6
$$10^3 \times 10^3 =$$

7
$$10^4 \times 10^1 =$$

8
$$10^4 \times 10^2 =$$

8
$$10^4 \times 10^2 =$$
 9 $10^4 \times 10^3 =$ _____

Set B

$$1 \frac{10^7}{10} = \underline{\qquad \qquad } 2 \frac{10^7}{10^2} = \underline{\qquad }$$

$$\frac{10^7}{10^2} = \underline{}$$

$$\frac{10^7}{10^3} = \underline{\hspace{1cm}}$$

$$\boxed{4} \ \frac{10^8}{10} = \underline{\qquad} \qquad \boxed{5} \ \frac{10^8}{10^2} = \underline{\qquad}$$

$$\boxed{5} \ \frac{10^8}{10^2} = \underline{\hspace{1cm}}$$

6
$$\frac{10^8}{10^3} =$$

$$\frac{10^9}{10} = \underline{}$$

$$8 \frac{10^9}{10^2} = \underline{\hspace{1cm}}$$

$$9 \frac{10^9}{10^3} = \underline{}$$

Evaluate the expression.

Form A

1
$$7 + 6 \times 2 =$$

3
$$26 - 3 \times 4 =$$

6
$$8 + 6 \times 3^2 =$$

7
$$18 - 8^2 \div 4 =$$

8
$$12 - 8 \times 0.25 =$$

9 9 + 25
$$\div$$
 5² =

10
$$6^2 \div 9 + 3 =$$

14
$$131 - 4 \times 2^3 =$$

17
$$96 \div 2^4 + 32 =$$

18
$$35 - 0.5 \times 56 =$$

19
$$10^2 \div 5 \times 4 =$$

20
$$3^3 + 18 \div 3 =$$

Order of Operations—Skills Practice

Name: _____

Evaluate the expression.

Form B

1
$$8 + 7 \times 2 =$$

$$2 0.4 \times 20 + 5 =$$

3
$$34 - 4 \times 8 =$$

4
$$26 + 12 \times 0.5 =$$

6
$$6 + 5 \times 4^2 =$$

7
$$18 - 6^2 \div 3 =$$

8
$$16 - 12 \times 0.25 =$$

9
$$4+9 \div 3^2 =$$

10
$$8^2 \div 2 + 6 =$$

12
$$54 + 0.2 \times 60 =$$

13
$$54 \div 6 \times 3 =$$

14
$$191 - 2 \times 3^4 =$$

17
$$72 \div 2^3 + 1 =$$

18
$$41 - 0.5 \times 46 =$$

19
$$6^2 \div 9 \times 2 =$$

20
$$4^3 + 32 \div 8 =$$

Evaluate Expressions with Variables— Skills Practice

Name:

Evaluate the expression.

Form A

1
$$s = 7$$
; $6s^2 =$ _____

$$x = 3$$
; $4x^3 + 2 =$

3
$$n = \frac{1}{8}; \frac{2}{n} = \underline{\hspace{1cm}}$$

4
$$x = \frac{1}{6}$$
; $18x + 4 =$ _____

6
$$p = 0.5$$
; $42 - 42p =$ _____

7
$$x = 0.25; 48x - 3 =$$

8
$$a = 3$$
; $a^3 =$ _____

9
$$y = 84$$
; $\frac{y}{4} - 15 = _____$

10
$$c = 35$$
; $\frac{9c}{5} + 32 = _____$

11
$$n = 0.5; \frac{8}{n} + 8 =$$

12
$$x = 3$$
; $169 - 2x^4 =$ _____

13
$$a = 3$$
; $12a^2 =$ _____

14
$$w = \frac{1}{5}$$
; 38 - 15 $w =$ _____

15
$$x = 9$$
; $8x + 3 =$ _____

16
$$m = 2; \frac{16}{2m} =$$

17
$$x = 7$$
; $x^2 - 5^2 =$ _____

18
$$p = 25; \frac{p}{100} (120) = \underline{\hspace{1cm}}$$

Evaluate Expressions with Variables— Skills Practice

Name: _____

Evaluate the expression.

Form B

1
$$s = 8$$
; $6s^2 =$ _____

2
$$x = 2$$
; $7x^3 + 4 =$ _____

3
$$n = \frac{1}{6}; \frac{4}{n} =$$

4
$$x = \frac{1}{3}$$
; $12x + 7 =$ _____

5
$$x = 8; \frac{6x + 9}{3} =$$

6
$$p = 0.2$$
; $20 - 20p =$ _____

7
$$x = 2$$
; 78 $-4x^3 =$ _____

8
$$a = 2$$
; $a^3 =$ _____

9
$$y = 96; \frac{y}{6} - 12 =$$

10
$$c = 45; \frac{9c}{5} + 32 =$$

11
$$n = 0.5; \frac{12}{n} + 15 =$$

12
$$x = 2$$
; $24x \div 6 =$ _____

13
$$a = 6$$
; $5a^2 =$ _____

14
$$w = \frac{1}{2}$$
; 46 $- 4w =$ _____

15
$$x = 7$$
; $9x + 4 = _____$

16
$$m = 3; \frac{30}{5m} =$$

17
$$x = 9$$
; $x^2 - 7^2 =$ _____

18
$$p = 50; \frac{p}{100}(460) =$$

Use the distributive property to write an equivalent expression.

Form A

1
$$5x + 20 =$$

$$3(x+6) =$$

$$8(4n + 3) =$$

4
$$7x - 35 =$$

5
$$12x - 6 =$$

$$9(2x + 9) =$$

$$8 \ 5(6 + 13a) = \underline{\hspace{1cm}}$$

11
$$7(n-3) =$$

12
$$2(12 + 10x) =$$

14
$$4(5-4w) =$$

15
$$32 - 12x =$$

16
$$10(2m-7) =$$

17
$$8 + 36x =$$

19
$$25(4n + 8) =$$

Equivalent Expressions—Skills Practice

Name: _____

Use the distributive property to write an equivalent expression.

Form B

1
$$6x + 18 =$$

$$4(x+7) =$$

$$9(3n+5) =$$

4
$$4x - 32 =$$

5
$$15x - 5 =$$

6
$$30p + 18 =$$

$$8(3x + 7) =$$

8
$$7(9 + 12a) =$$

10
$$3(c+4) =$$

11
$$5(n-8) =$$

12
$$6(5 + 9x) =$$

14
$$11(8-6w) =$$

15
$$42 - 36x =$$

16
$$25(10m + 3) =$$

17
$$6 + 14x =$$

18
$$10(3p-4) =$$

19
$$2(7n+6) =$$

Solve the equation.

Form A

1
$$x + 24 = 36; x =$$

3
$$\frac{5}{3} + x = 2; x =$$

4
$$7w = 28$$
; $w =$ _____

$$\frac{9}{5} = 1 + m; m = \underline{\hspace{1cm}}$$

6
$$0.5x = 14; x =$$

7
$$\frac{7}{2} = 4x$$
; $x =$ _____

8
$$215 + p = 230; p =$$

9
$$\frac{5}{6}x = 20; x =$$

10
$$x + 32 = 45; x =$$

11
$$c + \frac{2}{5} = 2; c =$$

12
$$0.2 + x = 3; x =$$

14
$$x + 0.8 = 4.3; x =$$

15
$$56 + n = 97; n =$$

16
$$39 = 17 + x$$
; $x =$ _____

17
$$0.6 + w = 4; w = _____$$

Solving Equations—Skills Practice

Name: ____

Solve the equation.

Form B

1
$$x + 26 = 39; x =$$

3
$$\frac{7}{3} + x = 3; x =$$

$$\frac{7}{4} = 1 + m; m = \underline{\hspace{1cm}}$$

6
$$0.5x = 18; x =$$

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

8
$$225 + p = 260; p =$$

9
$$\frac{3}{4}x = 24$$
; $x =$ _____

10
$$x + 41 = 63; x =$$

11
$$c + \frac{2}{3} = 4$$
; $c =$ _____

12
$$0.4 + x = 4; x =$$

14
$$x + 0.5 = 3.7; x =$$

15
$$48 + n = 79; n =$$

16
$$43 = 11 + x$$
; $x =$ _____

17
$$0.8 + w = 5; w =$$
