

# EPCS

65 W. Demarest Avenue

Englewood, NJ 07631

## 2024 - 2025 7th Grade Preparation Packet

Welcome to 7th Grade Mathematics! Our 7th Grade Mathematics Course is a comprehensive course that will provide you with the fundamental tools of mathematical understanding that will support you in future math courses. Since you will be taking 7th Grade Mathematics after successful completion of 6th Grade Mathematics, this preparation packet contains review material of the 6th grade concepts, skills, and procedures that should be mastered **BEFORE** entering 7th grade in the fall. Essentially, the packet provides a review of the major 6th grade topics as well as a preview of the 7th grade topics.

Here are some websites you might find particularly useful:

- [iReady.com](https://www.ixl.com/math/)
- <http://www.khanacademy.org/>
- [www.ixl.com/math/](http://www.ixl.com/math/)
- [www.brainpop.com](http://www.brainpop.com)
- [www.geogebra.org](http://www.geogebra.org)
- [www.math-aids.com](http://www.math-aids.com)
- [www.jeopardylabs.com](http://www.jeopardylabs.com)
- [www.kutasoftware.com](http://www.kutasoftware.com)

This collection of problems will identify those concepts you have mastered as well as those you will need to practice and review. You are expected to seek extra help immediately on those concepts with which you have not demonstrated proficiency. Be resourceful - use the online resources.

**\*\*\* Solve these problems without the use of a calculator and show all work.\*\*\***

You will be responsible for handing in the completed packet with all work shown on the first day of school. The problems here are very representative of the types of items you will need to have mastered BEFORE 7th Grade Math... so we strongly encourage you to include this packet in your summer festivities! Good luck and enjoy!

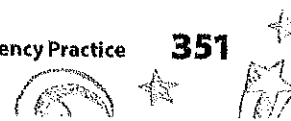
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7th Grade Preparation Packet Score: \_\_\_\_\_/50



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# Compute with Percents—Skills Practice

Name: \_\_\_\_\_

Find the percent.

Form A

1 30% of 250 = \_\_\_\_\_

2 90% of 130 = \_\_\_\_\_

3 15% of 80 = \_\_\_\_\_

4 10% of 70 = \_\_\_\_\_

5 110% of 630 = \_\_\_\_\_

6 125% of 84 = \_\_\_\_\_

7 20% of 75 = \_\_\_\_\_

8 15% of 40 = \_\_\_\_\_

9 25% of 60 = \_\_\_\_\_

10 70% of 120 = \_\_\_\_\_

11 80% of 80 = \_\_\_\_\_

12 50% of 82 = \_\_\_\_\_

13 29% of 300 = \_\_\_\_\_

14 11% of 100 = \_\_\_\_\_

15 75% of 32 = \_\_\_\_\_

16 50% of 196 = \_\_\_\_\_

17 100% of 90 = \_\_\_\_\_

18 10% of 720 = \_\_\_\_\_

19 80% of 25 = \_\_\_\_\_

20 60% of 70 = \_\_\_\_\_

21 8% of 200 = \_\_\_\_\_

22 150% of 80 = \_\_\_\_\_

23 35% of 40 = \_\_\_\_\_

24 40% of 120 = \_\_\_\_\_

# Compute with Percents—Skills Practice

Name: \_\_\_\_\_

Form A

Use the part and the percent to find the whole.

1  $6 = 10\%$  of \_\_\_\_\_

2  $62 = 50\%$  of \_\_\_\_\_

3  $15 = 25\%$  of \_\_\_\_\_

4  $12 = 48\%$  of \_\_\_\_\_

5  $3 = 30\%$  of \_\_\_\_\_

6  $8 = 40\%$  of \_\_\_\_\_

7  $49 = 70\%$  of \_\_\_\_\_

8  $52 = 26\%$  of \_\_\_\_\_

9  $50 = 20\%$  of \_\_\_\_\_

10  $9 = 75\%$  of \_\_\_\_\_

11  $32 = 80\%$  of \_\_\_\_\_

12  $11 = 100\%$  of \_\_\_\_\_

13  $150 = 50\%$  of \_\_\_\_\_

14  $81 = 90\%$  of \_\_\_\_\_

15  $186 = 62\%$  of \_\_\_\_\_

16  $12 = 20\%$  of \_\_\_\_\_

17  $24 = 75\%$  of \_\_\_\_\_

18  $40 = 40\%$  of \_\_\_\_\_

19  $35 = 70\%$  of \_\_\_\_\_

20  $27 = 10\%$  of \_\_\_\_\_

21  $98 = 49\%$  of \_\_\_\_\_

22  $80 = 40\%$  of \_\_\_\_\_

23  $15 = 15\%$  of \_\_\_\_\_

24  $30 = 75\%$  of \_\_\_\_\_

# Compute with Percents— Repeated Reasoning

Name: \_\_\_\_\_

Find patterns in percents.

## Set A

1 60% of 20 = \_\_\_\_\_

2 60% of 30 = \_\_\_\_\_

3 60% of 40 = \_\_\_\_\_

4 50% of 20 = \_\_\_\_\_

5 50% of 30 = \_\_\_\_\_

6 50% of 40 = \_\_\_\_\_

7 40% of 20 = \_\_\_\_\_

8 40% of 30 = \_\_\_\_\_

9 40% of 40 = \_\_\_\_\_

10 30% of 20 = \_\_\_\_\_

11 30% of 30 = \_\_\_\_\_

12 30% of 40 = \_\_\_\_\_

## Set B

1 8% of 25 = \_\_\_\_\_

2 16% of 25 = \_\_\_\_\_

3 24% of 25 = \_\_\_\_\_

4 8% of 50 = \_\_\_\_\_

5 16% of 50 = \_\_\_\_\_

6 24% of 50 = \_\_\_\_\_

7 8% of 75 = \_\_\_\_\_

8 16% of 75 = \_\_\_\_\_

9 24% of 75 = \_\_\_\_\_

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

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# Compute with Percents— Repeated Reasoning

Name: \_\_\_\_\_

Find place value patterns.

## Set A

1 25% of 4 = \_\_\_\_\_

2 25% of 40 = \_\_\_\_\_

3 25% of 400 = \_\_\_\_\_

4 50% of 4 = \_\_\_\_\_

5 50% of 40 = \_\_\_\_\_

6 50% of 400 = \_\_\_\_\_

7 75% of 4 = \_\_\_\_\_

8 75% of 40 = \_\_\_\_\_

9 75% of 400 = \_\_\_\_\_

## Set B

1 100% of 300 = \_\_\_\_\_

2 10% of 300 = \_\_\_\_\_

3 1% of 300 = \_\_\_\_\_

4 200% of 300 = \_\_\_\_\_

5 20% of 300 = \_\_\_\_\_

6 2% of 300 = \_\_\_\_\_

7 400% of 300 = \_\_\_\_\_

8 40% of 300 = \_\_\_\_\_

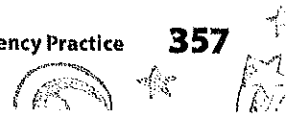
9 4% of 300 = \_\_\_\_\_

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

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# Compute with Percents— Repeated Reasoning

Name: \_\_\_\_\_

Find patterns using the distributive property.

## Set A

1 30% of 10 = \_\_\_\_\_

2 20% of 10 = \_\_\_\_\_

3 50% of 10 = \_\_\_\_\_

4 30% of 20 = \_\_\_\_\_

5 20% of 20 = \_\_\_\_\_

6 50% of 20 = \_\_\_\_\_

7 30% of 30 = \_\_\_\_\_

8 20% of 30 = \_\_\_\_\_

9 50% of 30 = \_\_\_\_\_

## Set B

1 2% of 50 = \_\_\_\_\_

2 4% of 50 = \_\_\_\_\_

3 6% of 50 = \_\_\_\_\_

4 20% of 50 = \_\_\_\_\_

5 40% of 50 = \_\_\_\_\_

6 60% of 50 = \_\_\_\_\_

7 200% of 50 = \_\_\_\_\_

8 400% of 50 = \_\_\_\_\_

9 600% of 50 = \_\_\_\_\_

10 220% of 50 = \_\_\_\_\_

11 440% of 50 = \_\_\_\_\_

12 660% of 50 = \_\_\_\_\_

13 222% of 50 = \_\_\_\_\_

14 444% of 50 = \_\_\_\_\_

15 666% of 50 = \_\_\_\_\_

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

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# Divide Fractions—Skills Practice

Name: \_\_\_\_\_

Find the quotient.

Form A

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

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

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

4  $\frac{1}{4} \div \frac{1}{6} =$  \_\_\_\_\_

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

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

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

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

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

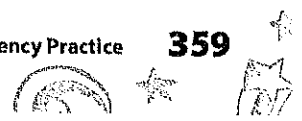
14  $\frac{3}{2} \div \frac{6}{5} =$  \_\_\_\_\_

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



# Divide Fractions—Repeated Reasoning

Name: \_\_\_\_\_

Find patterns in fraction division.

## Set A

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

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

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

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

5  $\frac{1}{2} \div \frac{1}{8} =$  \_\_\_\_\_

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

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

8  $\frac{3}{2} \div \frac{1}{16} =$  \_\_\_\_\_

## Set B

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

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

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

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

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

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

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

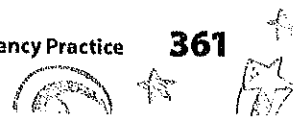
8  $\frac{3}{2} \div \frac{4}{4} =$  \_\_\_\_\_

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

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# Divide Whole Numbers—Skills Practice

Name: \_\_\_\_\_

Find the quotient.

Form A

1  $61 \overline{)793}$

2  $25 \overline{)675}$

3  $46 \overline{)506}$

4  $30 \overline{)510}$

5  $41 \overline{)328}$

6  $80 \overline{)5,680}$

7  $35 \overline{)2,170}$

8  $22 \overline{)7,040}$

9  $72 \overline{)7,488}$

10  $63 \overline{)53,865}$

11  $75 \overline{)72,525}$

12  $40 \overline{)9,240}$

13  $44 \overline{)54,164}$

14  $15 \overline{)15,810}$

15  $12 \overline{)17,472}$

# Divide Whole Numbers— Repeated Reasoning

Name: \_\_\_\_\_

Find place value patterns.

## Set A

1  $10 \overline{)16,000}$

2  $100 \overline{)16,000}$

3  $1,000 \overline{)16,000}$

4  $5 \overline{)16,000}$

5  $50 \overline{)16,000}$

6  $500 \overline{)16,000}$

## Set B

1  $120 \div 10 =$  \_\_\_\_\_

2  $1,200 \div 10 =$  \_\_\_\_\_

3  $12,000 \div 10 =$  \_\_\_\_\_

4  $120 \div 20 =$  \_\_\_\_\_

5  $1,200 \div 20 =$  \_\_\_\_\_

6  $12,000 \div 20 =$  \_\_\_\_\_

7  $120 \div 30 =$  \_\_\_\_\_

8  $1,200 \div 30 =$  \_\_\_\_\_

9  $12,000 \div 30 =$  \_\_\_\_\_

10  $120 \div 40 =$  \_\_\_\_\_

11  $1,200 \div 40 =$  \_\_\_\_\_

12  $12,000 \div 40 =$  \_\_\_\_\_

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

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Add.

Form A

1  $22.098 + 14.103 =$  \_\_\_\_\_

2  $6.07 + 12.149 =$  \_\_\_\_\_

3  $3.1 + 4.904 =$  \_\_\_\_\_

4  $8.062 + 7.189 =$  \_\_\_\_\_

5  $11.802 + 32.4 =$  \_\_\_\_\_

6  $13.765 + 6.23 =$  \_\_\_\_\_

7  $76.147 + 5.07 =$  \_\_\_\_\_

8  $63.98 + 0.031 =$  \_\_\_\_\_

9  $0.093 + 0.02 =$  \_\_\_\_\_

10  $5.2 + 0.871 =$  \_\_\_\_\_

11  $41.82 + 7.593 =$  \_\_\_\_\_

12  $2.76 + 27.959 =$  \_\_\_\_\_

13  $8.91 + 0.092 =$  \_\_\_\_\_

14  $33.99 + 24.002 =$  \_\_\_\_\_

15  $1.099 + 0.038 =$  \_\_\_\_\_

16  $2.08 + 0.671 =$  \_\_\_\_\_

17  $9.7 + 0.345 =$  \_\_\_\_\_

18  $1.999 + 52.651 =$  \_\_\_\_\_

19  $17.76 + 8 + 45.309 =$  \_\_\_\_\_

20  $68.821 + 15.34 + 1.009 =$  \_\_\_\_\_



# Add Decimals—Repeated Reasoning

Name: \_\_\_\_\_

Use patterns and mental math to add.

## Set A

1  $1.999 + 0.001 =$  \_\_\_\_\_ 2  $1.999 + 0.002 =$  \_\_\_\_\_ 3  $1.999 + 0.003 =$  \_\_\_\_\_

4  $1.998 + 0.002 =$  \_\_\_\_\_ 5  $1.998 + 0.003 =$  \_\_\_\_\_ 6  $1.998 + 0.004 =$  \_\_\_\_\_

7  $1.997 + 0.003 =$  \_\_\_\_\_ 8  $1.997 + 0.004 =$  \_\_\_\_\_ 9  $1.997 + 0.005 =$  \_\_\_\_\_

## Set B

1  $2.007 + 0.003 =$  \_\_\_\_\_ 2  $2.008 + 0.003 =$  \_\_\_\_\_ 3  $2.009 + 0.003 =$  \_\_\_\_\_

4  $2.008 + 0.002 =$  \_\_\_\_\_ 5  $2.009 + 0.002 =$  \_\_\_\_\_ 6  $2.010 + 0.002 =$  \_\_\_\_\_

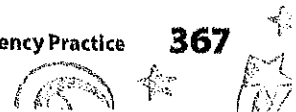
7  $2.009 + 0.001 =$  \_\_\_\_\_ 8  $2.010 + 0.001 =$  \_\_\_\_\_ 9  $2.011 + 0.001 =$  \_\_\_\_\_

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

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# Subtract Decimals—Skills Practice

Name: \_\_\_\_\_

**Subtract.**

**Form A**

**1**  $0.09 - 0.072 =$  \_\_\_\_\_

**2**  $82.456 - 50.03 =$  \_\_\_\_\_

**3**  $53.5 - 0.094 =$  \_\_\_\_\_

**4**  $12.091 - 0.132 =$  \_\_\_\_\_

**5**  $0.8 - 0.341 =$  \_\_\_\_\_

**6**  $54.784 - 23.8 =$  \_\_\_\_\_

**7**  $25.76 - 4.213 =$  \_\_\_\_\_

**8**  $27.261 - 18 =$  \_\_\_\_\_

**9**  $10.002 - 0.004 =$  \_\_\_\_\_

**10**  $6.365 - 0.245 =$  \_\_\_\_\_

**11**  $4.598 - 2.46 =$  \_\_\_\_\_

**12**  $36.7 - 0.062 =$  \_\_\_\_\_

**13**  $68 - 6.218 =$  \_\_\_\_\_

**14**  $18.25 - 6.342 =$  \_\_\_\_\_

**15**  $1.087 - 0.3 =$  \_\_\_\_\_

**16**  $0.076 - 0.02 =$  \_\_\_\_\_

**17**  $48.1 - 9.354 =$  \_\_\_\_\_

**18**  $56.285 - 7.293 =$  \_\_\_\_\_

**19**  $2.89 - 0.089 =$  \_\_\_\_\_

**20**  $82.138 - 6.4 =$  \_\_\_\_\_

**21**  $21.98 - 13.761 =$  \_\_\_\_\_



# Subtract Decimals—Repeated Reasoning

Name: \_\_\_\_\_

Use patterns and mental math to subtract.

## Set A

1  $8 - 0.1 =$  \_\_\_\_\_

2  $8 - 0.2 =$  \_\_\_\_\_

3  $8 - 0.3 =$  \_\_\_\_\_

4  $18 - 0.1 =$  \_\_\_\_\_

5  $18 - 0.2 =$  \_\_\_\_\_

6  $18 - 0.3 =$  \_\_\_\_\_

7  $108 - 0.1 =$  \_\_\_\_\_

8  $108 - 0.2 =$  \_\_\_\_\_

9  $108 - 0.3 =$  \_\_\_\_\_

## Set B

1  $20 - 0.01 =$  \_\_\_\_\_

2  $20 - 0.02 =$  \_\_\_\_\_

3  $20 - 0.03 =$  \_\_\_\_\_

4  $20 - 1.01 =$  \_\_\_\_\_

5  $20 - 1.02 =$  \_\_\_\_\_

6  $20 - 1.03 =$  \_\_\_\_\_

7  $20 - 2.01 =$  \_\_\_\_\_

8  $20 - 2.02 =$  \_\_\_\_\_

9  $20 - 2.03 =$  \_\_\_\_\_

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

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# Multiply Decimals—Skills Practice

Name: \_\_\_\_\_

Multiply.

Form A

$$\begin{array}{r} \text{1} \quad 2.1 \\ \times 0.76 \\ \hline \end{array}$$

$$\begin{array}{r} \text{2} \quad 52.4 \\ \times 4.5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{3} \quad 4.52 \\ \times 8.9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{4} \quad 5.8 \\ \times 7.4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{5} \quad 0.97 \\ \times 0.23 \\ \hline \end{array}$$

$$\begin{array}{r} \text{6} \quad 63.52 \\ \times 4.7 \\ \hline \end{array}$$

$$\begin{array}{r} \text{7} \quad 2.7 \\ \times 0.25 \\ \hline \end{array}$$

$$\begin{array}{r} \text{8} \quad 8.35 \\ \times 0.46 \\ \hline \end{array}$$

$$\begin{array}{r} \text{9} \quad 0.813 \\ \times 4.6 \\ \hline \end{array}$$

$$\begin{array}{r} \text{10} \quad 0.83 \\ \times 5.8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{11} \quad 12.3 \\ \times 6.5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{12} \quad 0.78 \\ \times 42.5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{13} \quad 912.5 \\ \times 0.85 \\ \hline \end{array}$$

$$\begin{array}{r} \text{14} \quad 3.6 \\ \times 8.14 \\ \hline \end{array}$$

$$\begin{array}{r} \text{15} \quad 0.64 \\ \times 31.8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{16} \quad 5.6 \\ \times 21.42 \\ \hline \end{array}$$

# Multiply Decimals—Repeated Reasoning

Name: \_\_\_\_\_

Find patterns in multiplying decimals.

## Set A

1  $0.1 \times 0.3 =$  \_\_\_\_\_

2  $0.1 \times 0.6 =$  \_\_\_\_\_

3  $0.2 \times 0.3 =$  \_\_\_\_\_

4  $0.2 \times 0.6 =$  \_\_\_\_\_

5  $0.4 \times 0.3 =$  \_\_\_\_\_

6  $0.4 \times 0.6 =$  \_\_\_\_\_

7  $0.8 \times 0.3 =$  \_\_\_\_\_

8  $0.8 \times 0.6 =$  \_\_\_\_\_

9  $1.6 \times 0.3 =$  \_\_\_\_\_

10  $1.6 \times 0.6 =$  \_\_\_\_\_

11  $3.2 \times 0.3 =$  \_\_\_\_\_

12  $3.2 \times 0.6 =$  \_\_\_\_\_

## Set B

1 
$$\begin{array}{r} 34.5 \\ \times 5 \\ \hline \end{array}$$

2 
$$\begin{array}{r} 34.5 \\ \times 0.5 \\ \hline \end{array}$$

3 
$$\begin{array}{r} 34.5 \\ \times 0.05 \\ \hline \end{array}$$

4 
$$\begin{array}{r} 34.5 \\ \times 0.005 \\ \hline \end{array}$$

5 
$$\begin{array}{r} 3.45 \\ \times 5 \\ \hline \end{array}$$

6 
$$\begin{array}{r} 3.45 \\ \times 0.5 \\ \hline \end{array}$$

7 
$$\begin{array}{r} 3.45 \\ \times 0.05 \\ \hline \end{array}$$

8 
$$\begin{array}{r} 3.45 \\ \times 0.005 \\ \hline \end{array}$$

9 
$$\begin{array}{r} 0.345 \\ \times 5 \\ \hline \end{array}$$

10 
$$\begin{array}{r} 0.345 \\ \times 0.5 \\ \hline \end{array}$$

11 
$$\begin{array}{r} 0.345 \\ \times 0.05 \\ \hline \end{array}$$

12 
$$\begin{array}{r} 0.345 \\ \times 0.005 \\ \hline \end{array}$$

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

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# Divide Decimals—Skills Practice

Name: \_\_\_\_\_

Divide.

Form A

1  $0.08 \overline{)3.84}$

2  $0.16 \overline{)6.08}$

3  $5.9 \overline{)2.183}$

4  $112.5 \overline{)7.2}$

5  $614.5 \overline{)3.687}$

6  $2.68 \overline{)9.648}$

7  $5.9 \overline{)10.62}$

8  $2.6 \overline{)137.8}$

9  $1.486 \overline{)66.87}$

10  $2.357 \overline{)68.353}$

11  $2.85 \overline{)267.9}$

12  $0.368 \overline{)33.856}$

13  $1.125 \overline{)240.3}$

14  $0.3 \overline{)8.37}$

15  $0.008 \overline{)2.3}$

16  $0.36 \overline{)0.621}$

Compare dividends and quotients to find patterns.

### Set A

1  $0.5 \overline{)2}$

2  $0.5 \overline{)4}$

3  $0.5 \overline{)8}$

4  $0.5 \overline{)20}$

5  $0.5 \overline{)40}$

6  $0.5 \overline{)80}$

7  $0.5 \overline{)200}$

8  $0.5 \overline{)400}$

9  $0.5 \overline{)800}$

### Set B

1  $1 \div 0.2 = \underline{\hspace{2cm}}$

2  $2 \div 0.2 = \underline{\hspace{2cm}}$

3  $3 \div 0.2 = \underline{\hspace{2cm}}$

4  $10 \div 0.2 = \underline{\hspace{2cm}}$

5  $20 \div 0.2 = \underline{\hspace{2cm}}$

6  $30 \div 0.2 = \underline{\hspace{2cm}}$

7  $100 \div 0.2 = \underline{\hspace{2cm}}$

8  $200 \div 0.2 = \underline{\hspace{2cm}}$

9  $300 \div 0.2 = \underline{\hspace{2cm}}$

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

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# 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: \_\_\_\_\_

# Least Common Multiples—Skills Practice

Name: \_\_\_\_\_

Find the least common multiple.

Form A

1 4 and 7: \_\_\_\_\_

2 5 and 6: \_\_\_\_\_

3 3 and 8: \_\_\_\_\_

4 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: \_\_\_\_\_

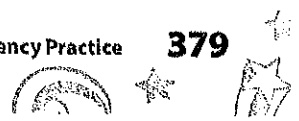
20 11 and 8: \_\_\_\_\_

21 10 and 5: \_\_\_\_\_

22 13 and 39: \_\_\_\_\_

23 4 and 16: \_\_\_\_\_

24 7 and 6: \_\_\_\_\_



Evaluate the expression.

Form A

1  $5^2 =$  \_\_\_\_\_

2  $3^2 + 7^2 =$  \_\_\_\_\_

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

4  $2^3(4^3 + 6^2) =$  \_\_\_\_\_

5  $7^3 =$  \_\_\_\_\_

6  $4^4(1^8 + 2^2) =$  \_\_\_\_\_

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

8  $\frac{9^2 - 7^2}{2^4} =$  \_\_\_\_\_

9  $8^3 =$  \_\_\_\_\_

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

11  $9^2 =$  \_\_\_\_\_

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

13  $\frac{10^2 + 3^2}{1^3} =$  \_\_\_\_\_

14  $3^4 =$  \_\_\_\_\_

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

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

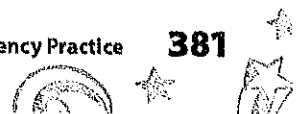
17  $8^2 \times 6^2 =$  \_\_\_\_\_

18  $\frac{3^3 + 6^2}{3^2} =$  \_\_\_\_\_

19  $2^5 =$  \_\_\_\_\_

20  $\frac{10^3}{2^2 + 6^2} =$  \_\_\_\_\_

21  $6^3 =$  \_\_\_\_\_





Look for patterns in expressions with exponents.

### Set A

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

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

3  $10^2 \times 10^3 =$  \_\_\_\_\_

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

9  $10^4 \times 10^3 =$  \_\_\_\_\_

### Set B

1  $\frac{10^7}{10} =$  \_\_\_\_\_

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

3  $\frac{10^7}{10^3} =$  \_\_\_\_\_

4  $\frac{10^8}{10} =$  \_\_\_\_\_

5  $\frac{10^8}{10^2} =$  \_\_\_\_\_

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

7  $\frac{10^9}{10} =$  \_\_\_\_\_

8  $\frac{10^9}{10^2} =$  \_\_\_\_\_

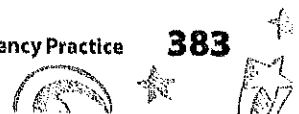
9  $\frac{10^9}{10^3} =$  \_\_\_\_\_

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

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# Order of Operations—Skills Practice

Name: \_\_\_\_\_

Form A

Evaluate the expression.

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

2  $0.25 \times 16 + 4 =$  \_\_\_\_\_

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

4  $18 + 14 \times 0.5 =$  \_\_\_\_\_

5  $18 \div 2 + 7 =$  \_\_\_\_\_

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

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

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

9  $9 + 25 \div 5^2 =$  \_\_\_\_\_

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

11  $48 \div 0.5 + 2 =$  \_\_\_\_\_

12  $42 + 0.2 \times 30 =$  \_\_\_\_\_

13  $36 \div 3 \times 4 =$  \_\_\_\_\_

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

15  $56 - 0.3 \times 40 =$  \_\_\_\_\_

16  $32 - 8 + 11 =$  \_\_\_\_\_

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

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

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

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

# Evaluate Expressions with Variables— Skills Practice

Name: \_\_\_\_\_

Evaluate the expression.

Form A

1  $s = 7; 6s^2 =$  \_\_\_\_\_

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

3  $n = \frac{1}{8}; \frac{2}{n} =$  \_\_\_\_\_

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

5  $x = 7; \frac{4x + 8}{2} =$  \_\_\_\_\_

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

15  $x = 9; 8x + 3 =$  \_\_\_\_\_

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

17  $x = 7; x^2 - 5^2 =$  \_\_\_\_\_

18  $p = 25; \frac{p}{100} (120) =$  \_\_\_\_\_

Use the distributive property to write an equivalent expression.

1  $5x + 20 =$  \_\_\_\_\_

2  $3(x + 6) =$  \_\_\_\_\_

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

4  $7x - 35 =$  \_\_\_\_\_

5  $12x - 6 =$  \_\_\_\_\_

6  $20p + 16 =$  \_\_\_\_\_

7  $9(2x + 9) =$  \_\_\_\_\_

8  $5(6 + 13a) =$  \_\_\_\_\_

9  $36 + 9y =$  \_\_\_\_\_

10  $6(c + 8) =$  \_\_\_\_\_

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

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

13  $21 + 15a =$  \_\_\_\_\_

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

15  $32 - 12x =$  \_\_\_\_\_

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

17  $8 + 36x =$  \_\_\_\_\_

18  $11(6 + 4p) =$  \_\_\_\_\_

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

20  $20w + 30 =$  \_\_\_\_\_