

Important Concepts . . .

# Preview Review



**Mathematics**

**Grade 5**

**W2 - Lesson 1: Division**

## Important Concepts of Grade 5 Mathematics

W1 - Lesson 1 .....	Number Sense Numbers 0 to 100 000
W1 - Lesson 2 .....	Exploring Proper Fractions
W1 - Lesson 3 .....	Exploring Decimals
W1 - Lesson 4 .....	Numbers With Up to 2 Decimal Places
W1 - Lesson 5 .....	Multiplication
W1 - Quiz	
W2 - Lesson 1 .....	Division
W2 - Lesson 2 .....	Collecting Data and Analyzing Patterns
W2 - Lesson 3 .....	Estimating and Taking Measurements
W2 - Lesson 4 .....	Perimeter and Area Measurements
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W3 - Lesson 2 .....	2-D Shapes and 3-D Objects
W3 - Lesson 3 .....	Transformations
W3 - Lesson 4 .....	Statistics and Probability
W3 - Lesson 5 .....	Chance and Probability
W3 - Quiz	

## Materials Required

Protractor  
Ruler  
Calculator

A textbook is not  
needed.

This is a stand-alone  
course.

Mathematics Grade 5

Version 5

Preview/Review W2 - Lesson 1

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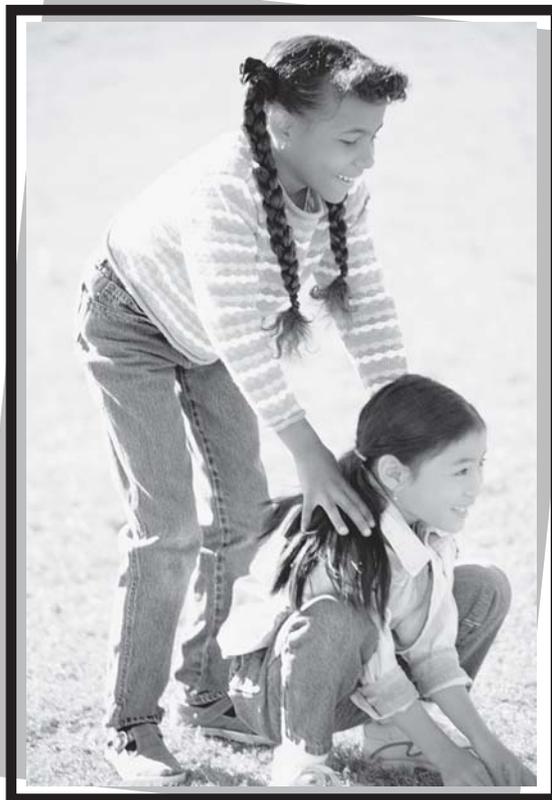
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# Preview/Review Concepts for Grade Five Mathematics



*W2 - Lesson 1:  
Division*

# OBJECTIVES

By the end of this lesson, you should

- understand divisor, dividend, and quotient
- divide 1-digit numbers into 3-digit numbers
- divide decimal numbers



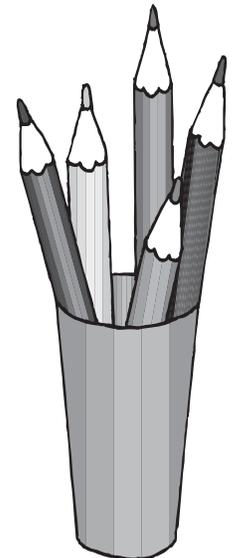
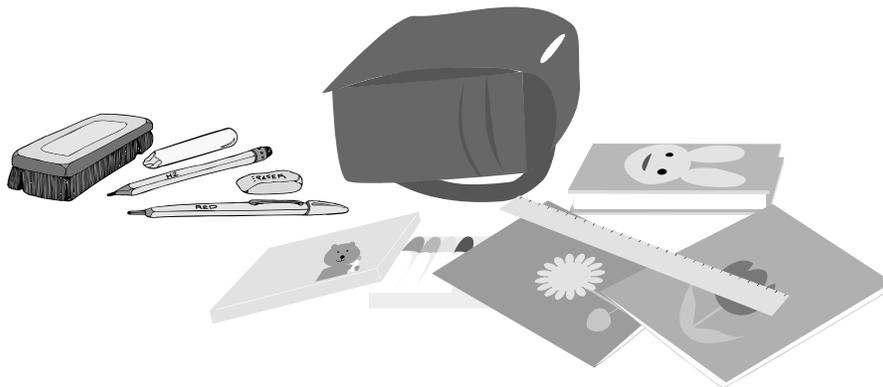
## Glossary of Terms

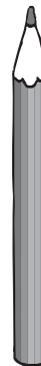


**Dividend:** This is the number that is being divided.

**Divisor:** The number that tells you “how many pieces the number is divided into” is the divisor.

**Quotient:** The answer to the division question is the quotient.



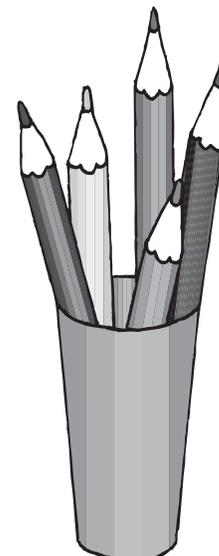


**Remainder:** When a “dividend” can not be divided equally, the “left over” number is the remainder.

$$\begin{array}{r}
 86 \leftarrow \text{quotient} \\
 \text{divisor} \rightarrow 3 \overline{)260 \leftarrow \text{dividend}} \\
 \underline{24} \\
 20 \\
 \underline{18} \\
 2 \leftarrow \text{remainder}
 \end{array}$$



$$\begin{array}{c}
 32 \div 4 = 8 \\
 \swarrow \quad \uparrow \quad \nwarrow \\
 \text{dividend} \quad \text{divisor} \quad \text{quotient} \\
 \text{(answer)}
 \end{array}$$



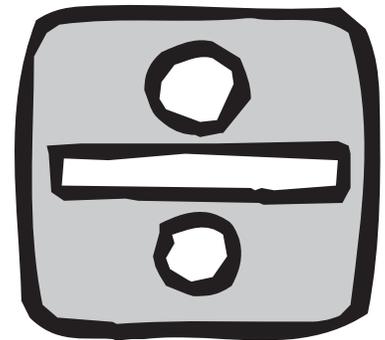
## W2 - Lesson 1: Division

### Concepts:

- Mental Math
- Estimated Quotient
- 3–Digit by 1–Digit Division
- Dividing Decimals

### Mental Math

Complete as many as you can in **one minute**.  
Do those you know first.



$6 \div 2 = \underline{\quad}$        $28 \div 7 = \underline{\quad}$        $18 \div 3 = \underline{\quad}$        $30 \div 6 = \underline{\quad}$        $3 \div 1 = \underline{\quad}$

$8 \div 8 = \underline{\quad}$        $18 \div 2 = \underline{\quad}$        $42 \div 6 = \underline{\quad}$        $20 \div 4 = \underline{\quad}$        $28 \div 4 = \underline{\quad}$

$32 \div 8 = \underline{\quad}$        $21 \div 3 = \underline{\quad}$        $27 \div 3 = \underline{\quad}$        $36 \div 6 = \underline{\quad}$        $48 \div 6 = \underline{\quad}$

$20 \div 5 = \underline{\quad}$        $42 \div 7 = \underline{\quad}$        $36 \div 4 = \underline{\quad}$        $11 \div 1 = \underline{\quad}$        $2 \div 2 = \underline{\quad}$

$14 \div 2 = \underline{\quad}$        $9 \div 3 = \underline{\quad}$        $18 \div 6 = \underline{\quad}$        $40 \div 8 = \underline{\quad}$        $8 \div 4 = \underline{\quad}$

## Estimated Quotient

Round the **dividend** to find a number that can be divided easily.  
Use your multiplication facts to help you.

$$\begin{array}{l} 4\,725 \div 7 = \underline{\hspace{2cm}} \longrightarrow \text{Rounded equals } 4900 \div 7 \\ \underline{\hspace{2cm}} \longrightarrow 49(00) \div 7 = 7(00) \\ \underline{\hspace{2cm}} \longrightarrow 4900 \div 7 = 700 \end{array}$$

Try the following by rounding the dividend to get a good estimate.

e.g.,  $6\,521 \div 8 = \underline{6\,400 \div 8 = 800}$

1.  $784 \div 8 = \underline{\hspace{2cm}}$

2.  $552 \div 6 = \underline{\hspace{2cm}}$

3.  $8\,069 \div 9 = \underline{\hspace{2cm}}$

4.  $341 \div 4 = \underline{\hspace{2cm}}$

5.  $348 \div 5 = \underline{\hspace{2cm}}$

6.  $2\,531 \div 4 = \underline{\hspace{2cm}}$

7.  $4\,683 \div 6 = \underline{\hspace{2cm}}$

8.  $2\,601 \div 5 = \underline{\hspace{2cm}}$

### 3-Digit by 1-Digit Division

1. Estimate  $8 \overline{)288}$

What number will 8 go into that is less than 28, but more than 20?

$8 \times 3 = 24$ . 24 is less than 28, but more than 20.



**Dividing whole Numbers**

- Estimate
- Multiply
- Subtract
- Bring it down and repeat

2. Multiply  $\begin{array}{r} 3 \\ 8 \overline{)288} \\ \underline{24} \end{array}$

Try your estimation number  
 $8 \times 3 = 24$



3. Subtract  $\begin{array}{r} 3 \\ 8 \overline{)288} \\ \underline{-24} \\ 04 \end{array}$

4. Bring it down and repeat  
Bring down the next digit in the dividend, and go to estimation again.

$\begin{array}{r} 3 \\ 8 \overline{)288} \\ \underline{24 \downarrow} \\ 48 \end{array}$

5. Estimate  
 $? \times 8 =$  equal to or less than 48, but greater than 40  
 $6 \times 8 = 48$

6. Subtract  
 $48 - 48 = 0$

$\begin{array}{r} 36 \\ 8 \overline{)288} \\ \underline{-24} \downarrow \\ 48 \\ \underline{-48} \\ 0 \end{array}$

7. Bring it down and repeat  
Because no numbers are available to bring down, you're finished!  
 $288 \div 8 = 36$

**Try the Following!**

1.  $9 \overline{)252}$

2.  $4 \overline{)323}$

3.  $8 \overline{)368}$

4.  $5 \overline{)310}$

5.  $7 \overline{)602}$

6.  $9 \overline{)171}$

7.  $6 \overline{)444}$

8.  $3 \overline{)264}$

9.  $4 \overline{)192}$

10.  $6 \overline{)564}$

## Dividing Decimals

1. Divide as normal.
2. Move the decimal into the answer in the same way that you move numbers down.
3. Let's go through the first one together.

$$\begin{array}{r} 7. \\ 6 \overline{)42.9} \\ \underline{-42} \\ 0 \end{array}$$

$$\begin{array}{r} 7.15 \\ 6 \overline{)42.90} \\ \underline{-42} \downarrow \downarrow \\ 09 \downarrow \\ \underline{-6} \downarrow \\ 30 \\ \underline{-30} \\ 0 \end{array}$$

If you still have a remainder, add another zero after the decimal and pull down until there is no remainder or you have a repeating decimal.

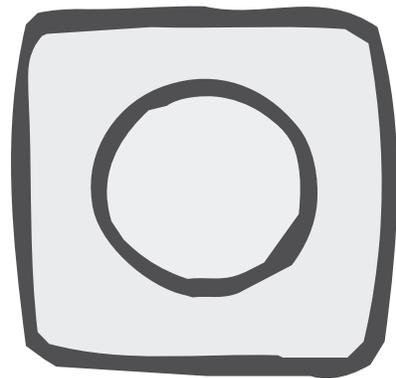


4. What to do with a repeating decimal.  $34 \div 12$ .

$$\begin{array}{r} 2.833 \\ 12 \overline{)34.000} \\ \underline{-24} \downarrow \downarrow \downarrow \\ 10 \ 0 \downarrow \downarrow \\ \underline{-96} \downarrow \downarrow \\ 40 \downarrow \\ \underline{-36} \downarrow \\ 40 \\ \underline{-36} \\ 4 \end{array}$$

3 will continue to repeat indefinitely. Put a dot over the first repeating digit to show that this is a repeating number.

**Answer repeats**



Complete the following.

1.  $8 \overline{)38.4}$

2.  $3 \overline{)12.69}$

3.  $2 \overline{)5.12}$

4.  $4 \overline{)18.45}$

5.  $6 \overline{)70.6}$

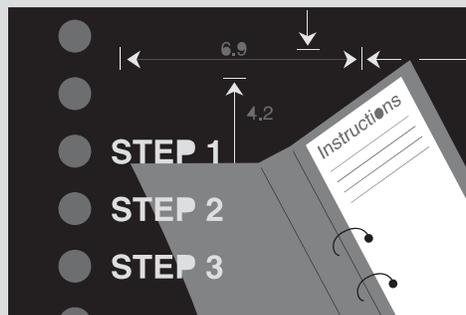
6.  $5 \overline{)27.5}$

7.  $9 \overline{)54.9}$

8.  $3 \overline{)15.40}$

### 3-Step Problem-Solving Process

1. Write the problem in a number question.
2. Solve the problem. **Show your work.**
3. Write a sentence with the answer.



1. John went to *The CD Exchange* to buy some CDs. The sale sign said, “2 for \$14.98.” How much does each CD cost?

2. At *The CD Exchange*, you can bring in old CDs for credit in the store. For every 4 CDs you bring, you get one CD from the store. If Bob and his friends bring in 112 CDs, how many CDs can they choose from the store?

3. Jessica has 234 CDs. She needs 6 shelves to store them. How many CDs are on each Shelf?

