McGraw-Hill My Math

Enrich

Chapter 9

Grade 3

Mc Graw Hill

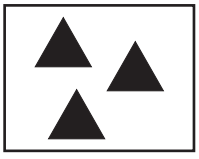
Name _____ Date _____

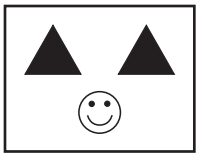
Lesson 2 Enrich

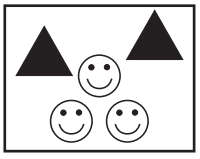
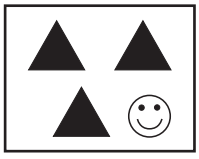
The Distributive Property

Use the coded answers to uncover what the ▲ and the ☺ signs stand for. Then use their values to solve each puzzle.

1.

 = 27

 = 26

 = _____  = _____

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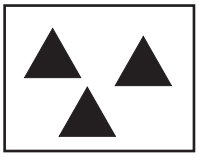
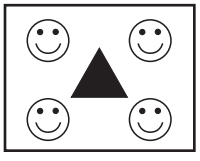
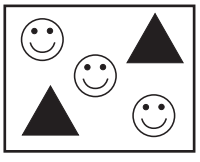
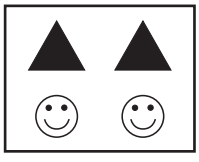
 = 33

 = 51

 = _____  = _____

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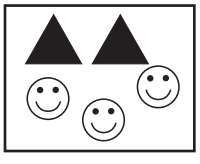
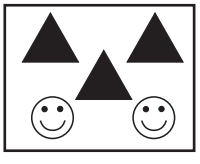
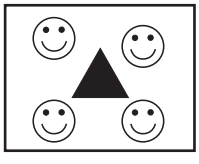
 = 45

 = _____  = _____

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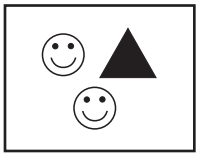
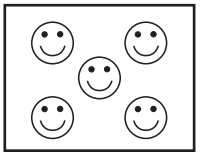
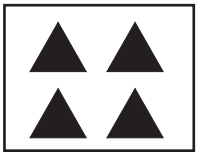
 = 26

 +  = _____

Name _____ Date _____

Lesson 4 Enrich

The Associative Property

In each magic square, each symbol has a different value. The products of each row and each column are given. Find the value represented by each symbol.

1.

□	△	★	10
△	★	●	30
★	●	□	15
10	30	15	

□ = _____
△ = _____
● = _____
★ = _____

2.

★	△	♥	30
★	●	□	12
★	♥	●	15
27	10	20	

● = _____
△ = _____
★ = _____
□ = _____
♥ = _____

3.

★	△	●	♥	24
★	△	♥	△	18
★	♥	□	□	50
★	●	△	★	48
16	36	60	30	

□ = _____
● = _____
△ = _____
★ = _____
♥ = _____

4. Make your own magic square. See if a friend can solve it.

			?
			?
			?
?	?	?	

Name _____ Date _____

Lesson 5 Enrich

Write Expressions

Identify and extend the rule for each table. Then use words to write an expression based on the table.

1. Rule: _____

Input	39	40	41	42	
Output	37	38	39	40	

Expression: _____

2. Rule: _____

Input	60	55	50	45	
Output	12	11	10	9	

Expression: _____

3. Rule: _____

Input	1	3	5	7	
Output	6	18	30	42	

Expression: _____

4. Rule: _____

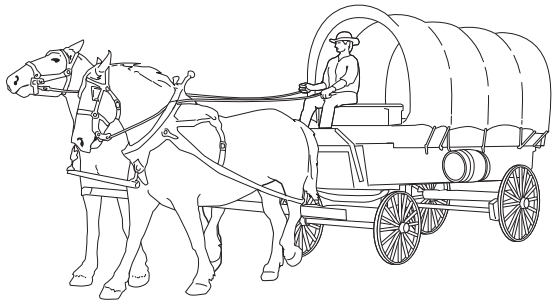
Input	12	14	16	18	
Output	25	27	29	31	

Expression: _____

Name _____ Date _____

Lesson 6 Enrich

Evaluate Expressions



The pioneers are crossing the prairie. Write and evaluate an expression for each part of the story.

1. The blacksmith made new wheels for b wagons. Each wagon has 4 wheels. If $b = 8$, how many wheels did the blacksmith make?

_____

2. The pioneers will travel h miles per day for 6 days, then travel 4 fewer miles on the seventh day. If $h = 9$, how far will the pioneers travel in one week?

_____

3. The pioneers started out with m gallons of water to be shared equally among 7 families. Then one family decided to bring 5 additional gallons of water. If $m = 56$, how many gallons of water did that family have in all?

_____

4. Each child was allowed to bring v toys on the trip. There were 15 children. Three children lost 2 toys along the way, and 4 children lost 1 toy. If $v = 3$, how many toys made it across the prairie?

_____

Name _____ Date _____

Lesson 7 Enrich

Write Equations

Fill in the missing signs. Write + or − in the box. Write =, <, or > in the circle to make the following number sentences true.

1. 9 ☐ 5 + 3 ◯ 9 − 4 _____

2. 4, 925 ◯ 1,679 ☐ 3,245 _____

3. 3  s + 2  s ◯ 1  _____

4. 100 ☐ the number days in a week ◯ 94 _____

5. 18 ☐ 27 ☐ 36 ◯ 72 ☐ 9 _____

6. 456 ☐ 25 ◯ 25 ☐ 456 _____

7. 8,005 ☐ 5,008 ◯ 2,997 _____

8. 87 rounded ☐ 58 rounded is ◯ 140.

Write a number sentence to show how you rounded to make the number sentence true.

_____

_____

_____

Name _____ Date _____

Lesson 8 Enrich

Solve Two-Step Word Problems

Pinecrest Elementary has a school newspaper. Students write articles and advertisements for the paper. Then they design each page to make sure everything fits. Help the students at Pinecrest Elementary make up their latest edition of the school newspaper.

1. Emma wrote a story that is 12 columns in length. The story will be divided evenly between 2 pages, and Emma has to cut 2 columns to make the story fit. How many columns of Emma's story will appear on each page?

_____

2. Jayce created 2 advertisements for each of 8 pages. Then he created extra advertisements in case they were needed to fill space. If the students need 21 advertisements for the newspaper, how many extra advertisements will be used?

_____

3. Roberto has taken 17 photos. Photos are placed on each odd-numbered page, and the newspaper has 10 pages total. The pages with photographs will have either 3 or 4 photos each. How many pages have 3 photos, and how many have 4 photos?

_____

_____

Name _____ Date _____

Lesson 9 Enrich

Problem Solving: Use Logical Reasoning

Tomás, Micah, and Blake each bought something at a garage sale. All items were priced in multiples of 5 cents. Each boy paid with a $1-bill and received 6 coins in change, but they all received a different total amount. Each boy received at least one quarter, one dime, and one nickel.

Tomás received an equal number of quarters, dimes, and nickels.
Micah received fewer quarters and nickels than Tomás.
Blake received 3 more nickels than Micah.

How much money did each boy receive in change?