Yeatman-Liddell College Preparatory Middle School

Winter Break Packet

Mathematics

2014-2015

NAME _____ DATE _____ PERIOD _____

2-8 Word Problem Practice

Problem-Solving Investigation: Look for a Pattern

Look for a pattern. Then use the pattern to solve each problem.

ENTERTAINMENT For Exercises 1 and 2, use the information at the right, which shows the ticket prices at a skating rink.

Number of People in Group	Total Cost per Group
1	$1.00
2	$2.00
3	$2.90
4	$3.70
5	$4.40

1. Describe the pattern used to calculate the cost for a group after 2 people.

2. If the pattern continues, what would the cost be for a group of 8 skaters?

3. SAVINGS Jordan saved $1 the first week, $2 the second week, $4 the third week, and $8 the fourth week. If this pattern continues, how much will she save the eighth week?

4. AGRICULTURE In a vegetable garden, the second row is 8 inches from the first row, the third row is 10 inches from the second row, the fourth row is 14 inches from the third row, and the fifth row is 20 inches from the fourth row. If the pattern continues, how far will the eighth row be from the seventh row?

5. GARDENING Marial was planting daisies in her garden. She planted 2 white daisies and 5 yellow daisies in the first row, 4 white daisies and 6 yellow daisies in the second row, and 6 white daisies and 7 yellow daisies in the third row. If she continues the pattern, how many white and yellow daisies will she plant in the sixth row?

6. BIOLOGY A newborn seal pup weighs 4 pounds the first week, 8 pounds the second week, 16 pounds the third week, and 32 pounds the fourth week. If this growth pattern continues, how many weeks old will the seal pup be before it weighs over 100 pounds?

NAME _____ DATE _____ PERIOD _____

3-3 Word Problem Practice

Problem-Solving Investigation: Use a Venn Diagram

Use a Venn diagram to solve each problem.

NATIONAL PARKS For Exercises 1 and 2, use the information in the box. It shows the number of people who visited two National Parks in one year.

Number of Yearly National Park Passes Sold	Pass Holders Who Visited Yellowstone National Park	Pass Holders Who Visited Yosemite National Park	Pass Holders Who Visited Both Parks
4,250,000	1,420,000	2,560,000	770,000

1. How many yearly pass holders visited ONLY Yellowstone Park?

2. How many yearly pass holders did not visit either Yosemite Park or Yellowstone Park?

3. PIZZA At a skating party, 10 skaters said they like pepperoni on their pizza, 12 said they like sausage. Seven skaters said they like both, and the rest like plain cheese. If there were 20 skaters having pizza, how many like plain cheese?

4. FIELD TRIP Of the 24 students on a fieldtrip to the local ski hill, 13 ski and 11 snowboard. Four of the students ski and snowboard. How many students do not ski or snowboard?

5. BOOKS Of the 420 people who visited the library, 140 people checked out a nonfiction book, 270 checked out a fiction book. Ninety-five of the visitors checked out both fiction and nonfiction. How many visitors did not check out a book?

6. SIBLINGS Of the 18 girls on a soccer team, 10 have a sister, 14 have a brother, and 8 have both a brother and a sister. How many of the girls do not have a brother or a sister?

NAME _____ DATE _____ PERIOD _____

3-7 Word Problem Practice

Distance on the Coordinate Plane

1. ARCHAEOLOGY An archaeologist at a dig sets up a coordinate system using string. Two similar artifacts are found—one at position (1, 4) and the other at (5, 2). How far apart were the two artifacts? Round to the nearest tenth of a unit if necessary.	**2. GARDENING** Vega set up a coordinate system with units of feet to locate the position of the vegetables she planted in her garden. She has a tomato plant at (1, 3) and a pepper plant at (5, 6). How far apart are the two plants? Round to the nearest tenth if necessary.
3. CHESS April is an avid chess player. She sets up a coordinate system on her chess board so she can record the position of the pieces during a game. In a recent game, April noted that her king was at (4, 2) at the same time that her opponent's king was at (7, 8). How far apart were the two kings? Round to the nearest tenth of a unit if necessary.	**4. MAPPING** Cory makes a map of his favorite park, using a coordinate system with units of yards. The old oak tree is at position (4, 8) and the granite boulder is at position (−3, 7). How far apart are the old oak tree and the granite boulder? Round to the nearest tenth if necessary.
5. TREASURE HUNTING Taro uses a coordinate system with units of feet to keep track of the locations of any objects he finds with his metal detector. One lucky day he found a ring at (5, 7) and an old coin at (10, 19). How far apart were the ring and coin before Taro found them? Round to the nearest tenth if necessary.	**6. GEOMETRY** The coordinates of points A and B are (−7, 5) and (4, −3), respectively. What is the distance between the points, rounded to the nearest tenth?
7. GEOMETRY The coordinates of points A, B, and C are (5, 4), (−2, 1), and (4, −4), respectively. Which point, B or C, is closer to point A?	**8. THEME PARK** Tom is looking at a map of the theme park. The map is laid out in a coordinate system. Tom is at (2, 3). The roller coaster is at (7, 8), and the water ride is at (9, 1). Is Tom closer to the roller coaster or the water ride?