

Yeatman-Liddell College Preparatory Middle School

Winter Break Packet

Mathematics

2014-2015

1-1

Word Problem Practice

A Plan for Problem Solving

Use the four-step plan to solve each problem.

SKATEBOARDING For Exercises 1 and 2, use the table at the right. It shows the results of a recent survey in which teenagers were asked who the best professional skateboarder is.

Skater	Votes
Bob Burnquist	18
Danny Way	15
Bam Margera	11
Arto Saari	9

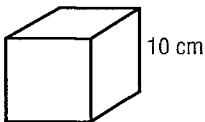
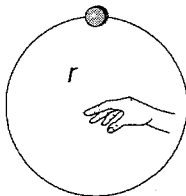
<p>1. Estimate the total number of teenagers who voted.</p>	<p>2. How many more teenagers preferred Burnquist to Saari?</p>
<p>3. HISTORY The area of Manhattan Island is 641,000,000 square feet. According to legend, the Native Americans sold it to the Dutch for \$24. Estimate the area that was purchased for one cent.</p>	<p>4. TRAVEL Britney's flight to Rome leaves New York City at 5:15 P.M. on Wednesday. The flight time is 7.5 hours. If Rome is 6 hours ahead of New York City, use Rome time to determine when she is scheduled to arrive.</p>
<p>5. OFFICE SUPPLIES At an office supply store, pens are \$1.69 per dozen and note pads are \$4.59 per dozen. Can Shirley buy 108 pens and 108 note pads for \$50? Explain your reasoning.</p>	<p>6. SHOPPING Yoshi bought two pairs of shoes. The regular price of each pair was \$108. With the purchase of one pair of shoes at regular price, the second pair was half price. How much did Yoshi pay altogether for the two pairs of shoes?</p>

1-2 Word Problem Practice

Variables, Expressions, and Properties

FOOTBALL For Exercises 1 and 2, use the table that shows statistics from the 2006 Super Bowl.

Team	Touchdowns	Extra Points	Field Goals
Pittsburgh	3	3	0
Seattle	1	1	1

<p>1. Each team's final score for a football game can be found using the expression $6t + e + 3f$, where t is the number of touchdowns, e is the number of extra points, and f is the number of field goals. Find Pittsburgh's final score in the 2006 Super Bowl.</p>	<p>2. Use the expression $6t + e + 3f$ to find Seattle's final score in the 2006 Super Bowl.</p>
<p>3. GEOMETRY The expression $6s^2$ can be used to find the surface area of a cube, where s is the length of an edge of the cube. Find the surface area of a cube with an edge of length 10 centimeters.</p> 	<p>4. VERTICAL MOTION The height of an object dropped from the top of a 300-foot tall building can be described by the expression $300 - 16t^2$, where t is the time, in seconds, after the ball is dropped. Find the height of the object 3 seconds after it is dropped.</p>
<p>5. MOVIE RENTALS Mario intends to rent 10 movies for his birthday party. He can rent new releases for \$4 each, while older ones are \$2 each. If he rents n new releases, the total cost, in dollars, of the 10 movies is represented by the expression $4n + 2(10 - n)$. Evaluate the expression to find the total cost if he rents 7 new releases.</p>	<p>6. CIRCULAR MOTION Pelipa is able to spin her yo-yo along a circular path. The yo-yo is kept in this path by a force which can be described by the expression $\frac{mv^2}{r}$. Evaluate the expression to find the force when $m = 12$, $v = 4$, and $r = 8$.</p> 

1-4**Word Problem Practice*****Adding Integers***

<p>1. FOOTBALL A football team loses 5 yards on one play and then loses 8 yards on the next play. Write an addition expression that represents the change in position of the team for the two plays. Then find the sum.</p>	<p>2. ELEVATOR You park in a garage 3 floors below ground level. Then you get in the elevator and go up 12 floors. Write an addition expression to represent this situation. Then find the sum.</p>
<p>3. GOLF In 2005, Tiger Woods won the Masters Tournament. His scores were +2, -6, -7, and -1 for four rounds. Write an addition expression that represents his final score. Then find the sum.</p>	<p>4. INVENTORY A local bookstore has 30 copies of a bestseller when it opens Monday morning. On Monday, it sells 6 copies of the book. On Tuesday, it sells 3 copies. On Wednesday, it receives a shipment containing 24 copies of the book and also sells 8 copies. Write an addition expression that represents the number of copies of the book that store has at the end of the day on Wednesday. Then find the sum.</p>
<p>5. OCEANOGRAPHY A research team aboard an underwater research vessel descends 1,500 feet beneath the surface of the water. They then rise 525 feet and descend again 350 feet. Write an addition expression to represent this situation. Then find the sum.</p>	<p>6. SPORTS Peter weighs 156 pounds, but he would like to wrestle in a lower weight class. He loses 4 pounds one week, gains back 2 pounds the next week, loses 5 pounds the third week, and loses 3 pounds the fourth week. Write an addition expression to represent this situation. Then find the sum.</p>