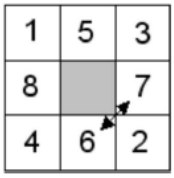
First name: _____ Last name: _____ Student ID: _____

Word Problem 2 Homework

Basic problems

1. Excavation for a pool is being done in your backyard. It measures 42F x 29F x 8F. The dirt will be taken away in the truck that holds $4.53F^3$. How many truckloads of dirt will be taken away?

2. The digits 1, 2, 3, 4, 5, 6, 7 and 8 are placed in the ring below. With the exception of 6 and 7, no two adjacent numbers are consecutive. Show how it is possible to arrange the digits 1 to 8 in the ring so that no two adjacent numbers are consecutive.



3. A two-inch cube (2 x 2 x 2) of silver weighs 3 pounds and is worth $200. How much is a three-inch cube of silver worth?

4. During a football game, Matt kicked the ball three times. His longest kick was 43 metres and the three kicks averaged 37 metres. If the other two kicks were the same length, find the distance, in metres, that each travelled.

5. Parents donated fudge for the fund raiser for your classroom. 40 pounds of chocolate fudge sold for $2.15 per pound and vanilla fudge sold for $1.90 per pound. Your class made $158.20. How many pounds of fudge were sold?

Challenge problems

1. Fran drove at an average speed of 70 miles per hour (mph) for 30 minutes. For the next 20 minutes, Fran drove at an average speed of 40 mph. For the next 10 minutes Fran drove at an average speed of 30 mph. What was Fran's average speed for the whole hour? (Round to the nearest mile per hour.)

2. One of your friends is heading north for a holiday and the other friend is heading south. If their destinies are 1029 miles apart and one car is traveling at 45 miles per hour and the other car is traveling at 53 miles per hour. How many hours before the two cars pass each other?

3. Dana needs 300 pickets for her colorful picket fence. She wants equal amounts of each of her 4 selected colors. She already has 32 red, 26 green, 9 yellow and no blue. How many more of each color does Dana need to buy? If the bulbs cost 25 cents and you get 20% off if you purchase 50 or more of the same color and 30% off if you purchase 60 or more of one color, how much does Dana need to spend?

4. A 20-ounce box of noodles contains 10 full servings. You like smaller servings; so you eat 7/8 of a full serving each time. After you eat as many of your size servings as possible, how many ounces of noodles will be left in the box?

5. A 7 feet long ladder is leaning against the building. The foot of the ladder is 2 feet from the base of the building. How far up the wall is the top of the ladder?

6. There are exactly three different pairs of positive integers that add to make six. How many different pairs of positive integers add to make one-thousand?

$1 + 5 = 6$
$2 + 4 = 6$
$3 + 3 = 6$

7. A snowman is built with three spheres made of packed snow. The top sphere has half the diameter of the middle sphere. The middle sphere has half the diameter of the bottom sphere. The top sphere weighs 5 pounds. What is the total weight of the snowman?

8. In a televised quiz show, one wins 250 points for a correct answer, but loses 150 points for an incorrect answer. One contestant replied to 15 questions and obtained 2150 points. How many correct answers did she give?

9. A mathematics contest consists of 26 questions. Seven points are awarded for each correct answer, and 3 points are deducted for each wrong answer. If a question is omitted, no points are awarded. If Daniel gets a score of 76 on the contest, how many questions did he answer correctly?

10. A total of fifteen delegates from Israel, Palestine, Russia and the United States meet at a conference. Each of these countries has sent a different number of delegates (with each country sending at least one delegate). Israel and Russia have sent a combined total of six delegates. Russia and the United States have sent a combined total of seven. One country has sent four delegates. Which one was it?

(A) Russia (B) Palestine (C) United States (D) Israel (E) Not enough information