



Warm-Up 11

- sq feet The fence surrounding a rectangular garden is 168 feet long. The length of the garden is 14 feet longer than its width. How many square feet are in the garden?
- games A baseball team has won 50 games out of the 75 they have played. There are 45 more games to be played. How many of these remaining games must they win to make their record for the season end with 60% wins?
- marks The pie chart shown is going to be turned into a bar graph. The total for government spending is \$9 trillion. The vertical scale on the bar graph starts at 0 and marks will be placed at intervals of \$500 billion. How many marks representing positive values on this scale will be used for a bar representing the money spent on Social Security?
- boys
 and girls In a computer room there are 3 times as many boys as girls. If 4 boys and 4 girls leave the room, then 5 times as many boys as girls will be in the room. How many boys and girls were in the room originally?
- sq units In triangle ABC, medians AM and CN are perpendicular to each other and intersect each other at G. A median that is cut by another median is divided in a 1 to 2 ratio, with the length of the median from the midpoint to the intersection of the medians being the shorter length. If $GM = 2$ units and $CN = 8$ units, what is the area of triangle ABC?
- buttons The Spirit Club at Franklin Middle School wants to sell buttons to increase school spirit. They plan on selling the buttons for \$1.00 each. The machine used to make the buttons cost the club \$350. Additionally, the supplies needed to make a button cost \$0.25 per button. How many buttons must the spirit club sell in order to pay off the button machine and make a profit of at least \$500?
- A right cone and a right cylinder have circular bases of equal size. If the volume of the cone is four times the volume of the cylinder, what is the ratio of the height of the cylinder to the height of the cone? Express your answer as a common fraction.
- What is the sum of all of the positive divisors of 900?
- sum
 expressions Two distinct integers are to be chosen at random from the set of the first 20 positive integers and then added together. If $a + b$ and $b + a$ are considered to be distinct sum expressions, how many distinct sum expressions are possible that result in a sum that is a multiple of 4?
- % Donald buys stock in a utility company. The value of his stock increases 10% the first month he owns it. During the second month, the value of his stock drops 20%. What is the net percent change in the value of Donald's stock over these two months?

Government Spending

