



Warm-Up 15

1. _____ packages



Fantasy gum is sold in 3-ounce and 10-ounce packages. One pound is equal to 16 ounces. If 76 packages were sold at B-Rite Mart last month and the total weight sold was less than 16 pounds, what is the greatest number of 10-ounce packages B-Rite could have sold?

2. _____ Three standard, six-sided dice are rolled. The sum of the three numbers on top is less than 6. What is the probability that all three dice show a 1? Express your answer as a common fraction.



3. _____ A line through point $P(4, 3)$ is parallel to the line $x - 2y = 8$. What is the equation of the line through point P ? Express your answer in slope-intercept form where the slope is a common fraction.

4. _____ ways How many different ways can the letters in the name HANK be scrambled so that the newly created "words" start and end with a consonant and are not HANK?

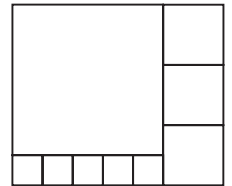
5. _____ sub-committees Eight sophomores are on a student council committee. A party planning subcommittee must be selected from these eight student council committee members. How many different party planning subcommittees are possible if it must have more than 1 but less than 5 members?



6. _____ pairs A regular hexagon and a regular octagon have the same perimeter. If the side lengths of these polygons are whole numbers and the sum of the perimeters is less than 200, how many different pairs of hexagons and octagons can be made?

7. _____ What is the integer closest to $\sqrt{150} + \sqrt{75}$?

8. _____ units² A rectangle has been partitioned into nine squares, as shown. If the area of each of the three medium squares is 100 square units, what is the area of the largest square?



9. _____ cm² A circle with a radius of $4\sqrt{3}$ cm is inscribed inside a regular hexagon. What is the area of the hexagon? Express your answer in simplest radical form.

10. _____ In the figure, $l \parallel m$ and $p \parallel r$. What is the value of x ?

