



Warm-Up 6

1. _____ In a box of 24 crayons, there are exactly four crayons that are shades of green. If Kia selects one crayon at random from the full box, what is the probability she will select a crayon that is a shade of green? Express your answer as a common fraction.




2. _____ pieces When the piñata burst at Evan's party, he was able to grab 48 pieces of candy, which was $\frac{3}{7}$ of the candy that fell out of the piñata. He was thrilled until he noticed that some of his friends did not get any candy. If everyone put their candy back into one pile, and the candy was then distributed evenly amongst Evan and his six friends, how many pieces of candy did each of Evan's friends receive?

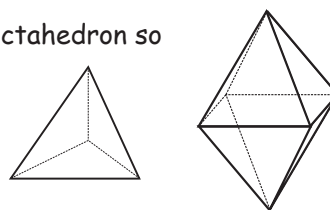
3. _____ sq units A cube has the same volume as a right, rectangular prism whose dimensions are 6 units by 12 units by 24 units. What is the surface area of the cube?

4. _____ integers How many of the first 1000 positive integers are divisible by 3, 4, 5 and 6?

5. _____ A sequence is formed by multiplying each term by 3 and adding 3 to get the next term. If the fifth term is 39, what is the value of the first term?

6. \$ _____  A trust fund of \$45,000 was divided into three parts in the ratio of 2:3:4, and the parts were invested at 4%, 5% and 6% annual rates of simple interest, respectively. How much total interest income did the money earn after one year?

7. _____ vertices A regular tetrahedron is glued to each face of a regular octahedron so that the faces are perfectly aligned. The faces of the tetrahedrons are congruent to the faces of the octahedron. How many vertices does the resulting solid have?



8. _____ Jane selects a positive two-digit integer. She multiplies the units digit by five and the tens digit by three and adds the results. What was the integer she selected if her total is the same as the integer she chose?

9. _____ The volumes of two similar solids, A and B, are in the ratio 1:64, respectively. What is the ratio of the surface area of solid A to the surface area of solid B? Express your answer as a common fraction.

10. _____ lattice points A triangular region is enclosed by the lines $y = x$, $y = -x$ and $y = 7$. How many lattice points are strictly inside the triangular region?