

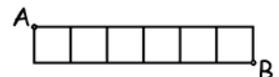
# Warm-Up 12

1. \$ \_\_\_\_\_ In February, 35% of Clarissa's budget was spent on food and 25% of that amount was spent on meals that she ate at a restaurant. If Clarissa's budget for February was \$880, how much did she spend in restaurants during the month of February?
2. \_\_\_\_\_ What is the greatest 3-digit prime that can be written in base-3? Express your answer in base-3.
3. \_\_\_\_\_ oz A cube made of solid wood is 5cm tall and weighs 5 ounces. Bob sands  $\frac{1}{2}$  centimeter from each face of the cube, leaving a smaller cube. How many ounces does the smaller wood cube weigh? Express your answer as a decimal to the nearest hundredth.
4. \_\_\_\_\_ The mean for a set of seven distinct positive integers is twice its median. What is the least possible sum of these seven integers?
5. \_\_\_\_\_ Three steel poles are chosen at random from a set containing poles of length 3m, 5m, 7m, and 9m. What is the probability that the three selected poles can be welded together at the ends to form a triangle? Express your answer as a common fraction.

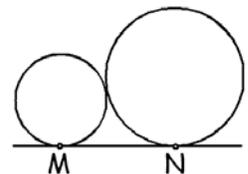


6. \_\_\_\_\_ How many of the factors of 990 have units digit 5?
7. \_\_\_\_\_ Square ABCD is graphed on the coordinate plane with coordinates A(4, 1) and C(11, -2). Vertex B has coordinates (9, y) and vertex D has coordinates (x, -4). Find  $x + y$ .

8. \_\_\_\_\_ How many distinct paths can be traced from A to B along the lines on the grid shown if retracing a line is not allowed?



9. \_\_\_\_\_ cm Circles of radius 2cm and 3cm are tangent to line MN at points M and N respectively and tangent to each other. What is the length of line segment MN? Express your answer in simplest radical form.



10. \_\_\_\_\_ Each of the digits 1 through 4 is used once to create a 4-digit positive integer. What is the probability that the integer formed is divisible by 11? Express your answer as a common fraction in simplest form.