

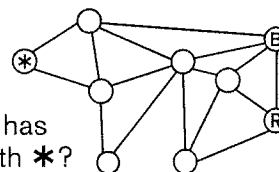


# Warm-Up 4

51. \_\_\_\_\_ What is the smallest integer that is greater than the product  $2.4999 \times 3.9999 \times 4.9999$ ?

52. \_\_\_\_\_ m<sup>2</sup> What is the area of a rectangle with sides that measure  $2\frac{1}{2}$  and  $7\frac{1}{3}$ , in meters? Express your answer as a mixed number.

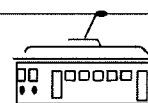
53. \_\_\_\_\_ In the figure, each circle is a vertex of one or more triangles. The circles marked B and R are colored blue and red, respectively. If each of the remaining circles is to be colored red, blue or yellow so that no triangle has two vertices of the same color, what is the color of the circle marked with \*?



54. \_\_\_\_\_ The mean of the first five terms of an arithmetic sequence is 27, and the mean of the first eight terms of the same sequence is 39. What is the absolute difference between the first and second terms of this sequence?

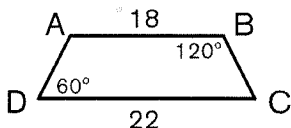
55. \_\_\_\_\_ people What is the minimum number of people that must be in a room to guarantee that at least one person has a birthday whose day is a single digit, assuming that no two people have the same birthday?

56. \_\_\_\_\_ feet A cable car is 30 feet in length and travels back and forth in a straight line, on a single cable that is 3000 feet in length. Let  $P$  be a point somewhere on the cable car. During one round trip, what is the distance traveled by point  $P$ ?



57. \_\_\_\_\_ To cater a party, Fancy Caterers charges a certain amount per guest plus a fixed delivery fee. The total cost for a party with 25 guests is twice the cost of a party with 10 guests. If the cost of a party with  $n$  guests is twice the cost of a party with 25 guests, what is the value of  $n$ ?

58. \_\_\_\_\_ cm ABCD is a trapezoid with bases  $AB = 18$  cm and  $DC = 22$  cm. The measures of  $\angle ABC$  and  $\angle ADC$  are 120 degrees and 60 degrees, respectively. What is the perimeter of trapezoid ABCD?



59. \_\_\_\_\_ seconds Kaci's jogging speed is 60% faster than her walking speed. The time it takes her to walk a mile is  $5\frac{1}{2}$  minutes longer than the time it takes her to jog a mile. How many seconds does it take Kaci to jog a mile?

60. \_\_\_\_\_ % Thirty percent of 80% of 20 is the same as what percent of 60% of 40?