Warm-Up 7

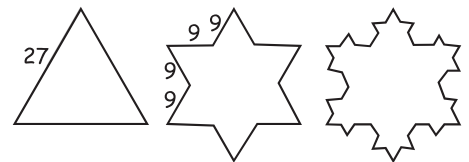1. _____minutes_____ How many minutes are in 25% of one day?

2. _____points_____ Rob's three assignment scores are 79, 80 and 84 points. What is the arithmetic mean of these three scores?

3. _____sq units_____ What is the area of regular hexagon ABCDEF if AB = 2 units? Express your answer in simplest radical form.

4. _____ Anderson will roll two standard six-sided dice once. What is the probability that the two numbers rolled will be the same? Express your answer as a common fraction.

5. _____ Jerry worked for one day on a project that he could have completed alone in nine days. Bill joined Jerry the next day, and they worked together for exactly three days to complete the project. How much of the job did Bill do in those three days? Express your answer as a common fraction.

6. _____ What is the ones digit when 9^{55} is expressed as an integer?

7. _____units_____ In the sequence of equilateral figures shown, the middle third of each segment is replaced with two segments that are each the same length as the replaced piece. Each side of the first figure (the triangle) is 27 units. What is the perimeter of the third figure in the sequence?

8. _____pennies_____ Sammy felt very generous. He gave Becky half of his pennies. Then an hour later, Sammy gave Janie one-fourth of his remaining pennies. Shortly after, Mary Beth borrowed half the pennies that Sammy had left. Sammy then had 12 pennies. How many pennies did Sammy give to Becky?

9. _____grams_____ A certain material's density is 2.5 g/cm³. Given that density = mass ÷ volume, what is the mass, in grams, of 300 cm³ of this material?

10. $_____ Alex parked his car at the Leggett Airport on Monday at 7 a.m. He removed his car from the parking lot on Friday of the same week at 10 a.m. The rates at Leggett are shown on this sign. How much did Alex pay for his parking during this time period?

> **Parking**
> $1 per hour
> ················
> $7 maximum
> per 24-hour period