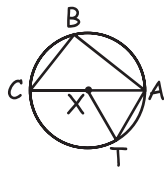# Warm-Up 5

1. _____ books   Eighty books will be divided among six people. No two people will receive the same number of books. The person who receives the most books will receive 20; the person who receives the fewest books will receive seven. What is the maximum number of books the person with the third-largest number of books could receive?

2. _____ units   In the circle with center X, the measure of angle AXT is 60°, and the measure of angle ABC is 90°. The length of segment AT is 5 units, and the length of segment BC is 6 units. What is the length of segment AB?

3. _____ sq ft   A 40-foot by 10-foot rectangular garden is enclosed by a fence. To make the garden larger, while using the same amount of fencing, its shape is changed to a square. How many square feet larger than the old garden is the new garden?

4. _____ combos   Rita is selecting a sandwich at the deli. The deli has four types of meat, three types of cheese and two types of bread. A deluxe sandwich consists of exactly one meat type, two different types of cheese and one bread type. How many different deluxe sandwich combinations are possible?

5. _____ cents   One zip, two zaps and three zups cost $1.50. Two zips, three zaps and one zup cost $1.00. Three zips, one zap and two zups cost $1.40. What is the total cost, in cents, of one zip, one zap and one zup?

6. _____ wrappers   A rectangular candy wrapper is made from a one-inch by three-inch piece of paper. What is the greatest number of wrappers that can be cut from a rectangular piece of paper measuring one foot by two feet?

7. _____ %   The stocks of five companies had the following percent changes in 2006: +9.9%, +5.7%, -7.2%, +1.8% and -0.9%. What is the average percent change in 2006 for these five companies? Express your answer to the nearest hundredth.

8. _____   Audrey's 300-mile trip took six hours to complete. She spent $\frac{2}{3}$ of the total time of her trip going the first $\frac{1}{3}$ of the distance. What is the ratio of her average speed during that first $\frac{2}{3}$ of the time to her average speed during the remaining $\frac{1}{3}$ of the time? Express your answer as a common fraction.

9. _____ sq ft   A large game field has an area of 400 square feet. A small practice field is made with every linear dimension half as large as the game field's dimensions. What is the area of the small practice field?

10. _____ units   A triangle has sides of length 5 and 6 units. The length of the third side is x units, where x is an integer. What is the largest possible perimeter of the triangle?