For Tuesday Nov. 16

F. Worksheet #19 (8-13); Worksheet #21 (8-13) and the following:

1. Oil spilled from a ruptured tanker spreads in a circular pattern whose radius increases at a constant rate of 2 ft/sec. How fast is the area of the spill increasing when the radius of the spill is 60 ft.?

2. A 10-ft plank is leaning against a wall. If at a certain instant the bottom of the plank is 2 ft. from the wall and is being pushed toward the wall at the rate of 6 in/sec., how fast is the acute angle that the plank makes with the ground increasing?

I.

1. Which of the following integers is a divisor of both 36 and 90?
   A) 12 B) 10 C) 8 D) 6 E) 4
   2. Point B is between points A and C on a line. If AB=2 and BC=7, then AC=
   A) 2 B) 3 C) 5 D) 7 E) 9

For Thursday Nov. 18

F. Worksheet #19 (1-7) and the following:

1. If one leg AB of a right triangle increases at the rate of 2 in/sec, while the other leg AC decreases at 3 in/sec, find how fast the hypotenuse is changing when AB=6 ft. and AC=8 ft.

2. The diameter and height of a paper cup in the shape of a cone are both 4 inches, and water is leaking out at the rate of 1/2 cubic inches per second. Find the rate at which the water level is dropping when the diameter of the surface is 2 inches.

3. Two cars are traveling along perpendicular roads, car A at 40 mi/hr, car B at 60 mi/hr. At noon when car A reaches the intersection, car B is 90 miles away and moving toward it. At 1 pm the distance between the cars is changing, in miles per hour, at the rate of
   A) -40 B) 68 C) 4 D) -4 E) 40

I. SAT (93, 94)