MATH 1500: Quiz 4.1–4.2

Set up and solve the proportion for each of the situations.

1. $\dfrac{0.12}{A} = \dfrac{2}{7}$

2. The paper needed for a printing job weighs 12 lbs per 500 sheets. How many pounds of paper are needed to run a job requiring 12,500 sheets?

3. The architectural drawing of an outside deck is $3\frac{1}{2}$ inches wide by $10\frac{7}{8}$ inches long. If the deck will actually be 14 feet wide, calculate the following:

    a) The actual length of the deck.   **b)** The scale factor

4. A pair of belted pulleys have diameters of 20 inches and 16 inches, respectively. If the larger pulley turns at 2000 rpm, how fast will the smaller pulley turn?

5. A 115-volt power transformer had 320 turns on the primary. If it delivers a secondary voltage of 12-volts, how many turns are on the secondary? Round to the nearest whole turn. (*Hint: Use a direct proportion.)

Bonus: A gas has a volume of 2480 cu cm at a pressure of 63.5 psi. What is the pressure when the gas is compressed to 1830 cu cm? Round to the nearest tenth.