Determining Pulley Speeds

What speed do I have here?

an example of the calculations, based on a motor speed of 1725 rpm, with the motor pulley and the spindle pulley having equal step diameters but inverted placement (see drawing below). We will assume the 4-step pulleys have step diameters of 2", 3", 4", and 5". Follow these steps to find the approximate spindle speeds:

1. Divide the diameter of the driving (or motor) pulley step by the corresponding step size of the pulley mounted on the drill press spindle:
2 ÷ 5 = 0.4
3 ÷ 4 = 0.75
4 ÷ 3 = 1.33
5 ÷ 2 = 2.5

2. Then, multiply the motor speed by the results of the above calculation to get the approximate spindle speed at each pulley step:
1725 x 0.4 = 690 rpm
1725 x 0.75 = 1293.75 rpm
1725 x 1.33 = 2294.25 rpm
1725 x 2.5 = 4312.5 rpm