Calculate the Z-Score for the following:

1. X = 170 Mean = 190 Std Dev = 15
2. X = 212 Mean = 185 Std Dev = 14.8
3. X = 3.7 Mean = 4.6 Std Dev = 0.6

Given the following scenarios, draw the normal distribution with the labels. Then calculate the z-score for the data value:

1. Joe’s math class mark is a 78%. The class average is 72% with a standard deviation of 3.4%.
2. Sue is 152 cm tall. The average height of other kids her age is 158 cm with a standard deviation of 1.9 cm.
3. The average life expectancy of a flu virus is 8 days with a standard deviation of 3 days. You get sick for 6 days.
4. The average “life” of a 60 W bulb is 125 hours with a standard deviation of 12 hours. Your light bulb burnt out at 132 hours.
5. The average speed recorded by police officers on a certain stretch of hiway is 122 km/hr. The standard deviation of the motorists is 4.5 km/hr. You are driving at a speed of 125 km/hr.
6. The class average on the math 20-2 final exam is 74% with a standard deviation of 12.2%. You get \_\_\_\_\_\_%. INSERT A NUMBER!!!