

Homework 3 MATH 1550 Fall 2019

$\mu = 28.1, \sigma = 3.4$

§ 2.5

#43

a) $z = \frac{34 - \mu}{\sigma} = \frac{34 - 28.1}{3.4} = 1.73529$

b) an age of 34 is about 1.74 std. dev. above the mean

c) not unusual

#47

$\mu = 35000 \quad \sigma = 2250$

$z_1 = \frac{34000 - 35000}{2250} = -0.44$

$z_2 = \frac{37000 - 35000}{2250} = 0.88$

$z_3 = \frac{30000 - 35000}{2250} = -2.22$

§ 3.1

#35

$\frac{259}{\text{total}} = \frac{259}{2163} = 0.1197$

#48) Not 45-59 = all others, so

$P(\text{not } 45-59) = \frac{38 + 20 + 31 + 36 + 15}{\text{total} = 193} = \frac{140}{193} = 0.725$

#53

Roll	Spin
1	yellow
2	y
3	y
4	y
5	y

5 outcomes

total possible outcomes: $6 \cdot 4 = 24$



So,

$P(\text{Roll } \# < 6 \text{ AND spin yellow}) = \frac{5}{24}$

≈ 0.2083