

NAME: _____

P.I. A2.S.5: Know and apply the characteristics of the normal distribution

1. The personal savings of the Young Saver Club were normally distributed with a mean of \$975 and a standard deviation of \$88. What is the probability that a randomly selected saver has an account total between \$1063 and \$1151?

[A] 0.68 [B] 0.34
[C] 0.025 [D] 0.135

2. The personal savings of the Young Saver Club were normally distributed with a mean of \$950 and a standard deviation of \$52. What is the probability that a randomly selected saver has an account total between \$846 and \$950?

[A] 0.025 [B] 0.34
[C] 0.475 [D] 0.68

3. The personal savings of the Young Saver Club were normally distributed with a mean of \$825 and a standard deviation of \$64. What is the probability that a randomly selected saver has an account total between \$825 and \$889?

[A] 0.025 [B] 0.135
[C] 0.34 [D] 0.68

4. Last year, the personal best high jumps of track athletes in a nearby state were normally distributed with a mean of 215 cm and a standard deviation of 19 cm. What is the probability that a randomly selected high jumper has a personal best between 253 and 272 cm?

5. Last year, the personal best high jumps of track athletes in a nearby state were normally distributed with a mean of 229 cm and a standard deviation of 14 cm. What is the probability that a randomly selected high jumper has a personal best between 215 and 243 cm?

6. Last year, the personal best high jumps of track athletes in a nearby state were normally distributed with a mean of 208 cm and a standard deviation of 19 cm. What is the probability that a randomly selected high jumper has a personal best between 227 and 265 cm?

[1] D

[2] C

[3] C

[4] 0.025

[5] 0.68

[6] 0.16