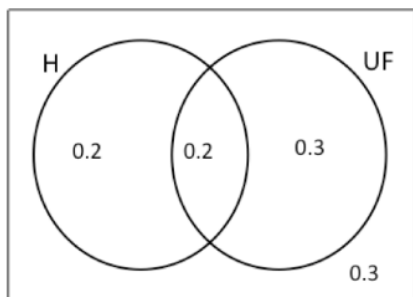


AP Statistics

Review Ch. 5 and review Answers

1. c 2. b 3. d 4. d 5. c 6. c 7. e 8. d
9. a 10. d 11. b 12. b 13. b 14. d 15. e
16. a. 0282 b. calls are independent c. .9718

17. b. .3 c. .3

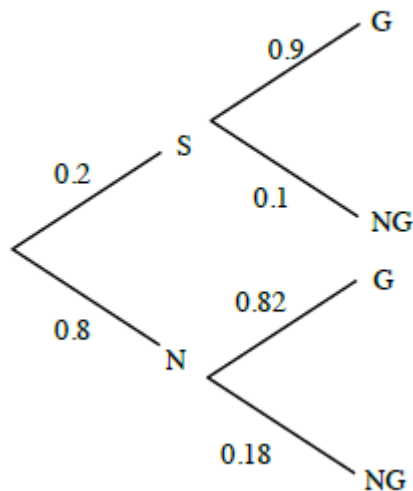


18. Using digits 0 – 9, 0 – 3 will represent a woman mathematician, 4 – 9 will represent a male mathematician. The number of women in the five trials were 1, 2, 1, 3, 2. This is an average of 1.8 women. The company’s number of female mathematicians (2) is quite close to this average so the company appears to be consistent with the national pool.

19 a.
$$P(G|S) = \frac{P(S \cap G)}{P(S)} = \frac{0.18}{0.20} = 0.9$$

b.
$$P(NG|S) = 1 - P(G|S) = 1 - 0.9 = 0.1$$

c.



d.
$$P(NS|G) = \frac{P(NS \cap G)}{P(G)} = \frac{0.8 \times 0.82}{(0.8 \times 0.82) + (0.2 \times 0.9)} \approx 0.785$$