

Group CHAPTER 2 Probability Concepts and Applications

TRUE/FALSE

- 2.16 ANSWER: TRUE
- 2.27 ANSWER: FALSE
- 2.29 ANSWER: TRUE
- 2.33 ANSWER: FALSE
- 2.35 ANSWER: TRUE
- 2.38 ANSWER: TRUE
- 2.40 ANSWER: FALSE
- *2.42 ANSWER: TRUE
- *2.46 ANSWER: TRUE

PROBLEMS

- 2.148 ANSWER: $125/400 = 0.3125$
- 2.149 ANSWER: $P(K|2nd) = 0.06/0.116 = 0.517$
- 2.151 ANSWER: (a) $240/400 = 0.60$ (b) $120/1000 = 0.120$ (c) $260/500 = 0.520$
- 2.152 ANSWER: (a) $10/200 = 0.05$ (b) $(190/200)(189/199) = 0.902$ (c) $(190/200)(10/199) = 0.048$
- 2.154 ANSWER: (a) 80 percent (b) 5 percent (c) $0.80/0.85 = 0.94$
- 2.155 ANSWER: (a) $0.98(0.98) = 0.9604$ (b) $0.02(0.98) + 0.98(0.02) = 0.0392$
- 2.156 ANSWER:

(a)

Gallons	Probability
10	0.20
11	0.35
12	0.35
13	0.10

- (b) $P(11 \text{ or } 12) = 0.70$
- (c) $P(\text{sales} > 10) = 0.80$
- (d) $E(X) = 11.35$
- 2.157 ANSWER: (a) $P(79 < X < 82) = 0.68268$ (b) $P(X > 90) = 0.00379$ (c) $P(X < 76) = 0.02275$
- 2.158 ANSWER: (a) 0.19146 (b) 0.38292 (c) 0.43319 (d) 0.62465 (e) 0.86692
- 2.159 ANSWER: (a) expected value = 1.0 (b) variance = 1.0 (c) $P(2 \text{ or more}) = 0.2 + 0.1 = 0.3$
- 2.160 ANSWER: (a) $P(X=4) = 0.1952$ (b) $P(X=5) = 0.2859$
- 2.161 ANSWER: (a) 0.06881 (b) 0.93319 (c) $46 + 0.84(4) = 49.36$
- Supplement 1 ask