

AP STATISTICS

Review Unit V – Probability – ANSWERS

1. D
2. E
3. A
4. E
5. D
6. C
7. A
8. a) 0.2840
b) 0.9947
c) 0.0144
9. a) 0.15
b) 0.45
c) 0.25
10. a) $1/11$ or 0.0909
b) $7/22$ or 0.3182
c) $19/66$ or 0.2879
11. a) 0.0992
b) 5.556 (don't round expected values to an integer!!!)
12. 0.68
13. a) 0.454
b) 0.3535
c) No... [the test is $P(A) = P(A|B)$]
14. a) 0.589
b) 0.0145
c) 0.9883
d) $E(X) = 2.847$, $SD(X) = 1.3227$
15. a) 0.2404
b) 0.1912
c) 0.2928
d) 1.6987
e) Two outcomes, each score is independent of each other, probability of success is the same for each trial
f) Mean = 88.35, SD = 6.0259
16. a) 0.907
b) 0.735
17. a) 1.36
b) In the long run, this is the mean number of hits required to break the piñata.
c) $Var(X) = 0.3504$, $SD(X) = 0.5919$
18. a) 10
b) 15
c) 0.7475
d) 0.0475