

1 a) **continuous** b) **discrete** c) **discrete** d) **continuous** e) **continuous**

2. Three out of four American university students ...

a) **0.18968**

b) **0.091**

3. Before a cell-phone leaves the factory, it is given a quality control check ...

0.0013

3. Approximately six in a thousand people have familial heterochromia ...

a) **11.652**

b) **0.11062**

c) **0.99999013**

5. Suppose, we have an unfair coin ...

a) **0.0082**

b) **{HHTHH} and {HHHHT} are equally likely**

c) **{4 heads and 1 tails} and {3 heads and 2 tails} are equally likely**

6. A gambling game involves a player drawing a card ...

\$1.625

7. Approximately 9% of the people in the world are left-handed. In a room of 200 find the probability that exactly 20 in the room are left handed.

0.08319

8. A board of directors consist of seven men and five women. If a sub-committee of three is selected from the board members, find the probability that exactly two are women. **0.318**

9. Approximately 9% of the people in the world are left-handed. In a room of 200 find the probability that exactly 20 in the room are left handed. **Binomial 0.083**

Poisson: $\lambda = .09 * 200 = 18$ so $e^{(-18)} * 18^20 / 20! =$ **0.0798**

10. In April of 2018 1264 fish were counted heading up the Willamette Falls fish ladder and 2 of them were Spring Chinook. If fish runs remain constant what is the probability that at least 1 Spring Chinook will be counted at the Willamette Falls fish ladder in April 2019? **0.86466**

11. An ancient camel bone die was unearthed at an archaeological site. **mean = 3.98 and s.d. = 1.606**