

# Practice Exam 2

(Pg 1)

1.  $A \cup B = \{2, 3, 4, 6, 7, 9\}$

2.  $A \cap B = \{4, 6\}$

3.  $A \cap C = \emptyset$

4.  $A^c = \{1, 3, 5, 8, 9, 10, 11, 12\}$

5.  $8/12$

6.  $8/12$

7. 0

8. ~~Stat~~  $\rightarrow$  Calculators  $\rightarrow$  Binomial

$$n = 10 \quad p = \frac{4}{12} = .3333$$

$$P(X \geq 6) = \underline{\text{answer}}$$

0.0766

9. Data  $\rightarrow$  Simulate  $\rightarrow$  Normal

Rows 500

Columns 1

Mean 0

Std 1

Fixed seed 10

Data  $\rightarrow$  Compute expression

$$4 * \text{Normal} + 3$$

Stat  $\rightarrow$  Summary Stats  $\rightarrow$  Column

Select columns

4 \* Normal + 3

Median	3.0757
Min	-7.7007
Max	14.54789
Q <sub>1</sub>	0.08108
Q <sub>3</sub>	5.6489

10-14 Stat → Calculators → Normal

mean 1509 std dev 321

10 1982,72

11 • 77<sup>th</sup> percentile

$$12 \quad z = \frac{x - \mu}{\sigma} = \frac{1750 - 1509}{321} = 1745.3$$

$$13 \quad 1.3 = \frac{x - 1509}{321} \quad x = (1.3)(321) + 1509 = 1926.3$$

14 0.0823