

1) Find the mean of the distribution shown below.

1) \_\_\_\_\_

$X$	3	6	7	8
$P(X)$	0.21	0.07	0.58	0.14

A) 0.25

B) 1

C) 6.23

D) 24

2) Give the variance of the following distribution.

2) \_\_\_\_\_

$X$	0	1	2	3	4
$P(X)$	0.20	0.35	0.10	0.25	0.10

A) 1.71

B) 1.25

C) 1.83

D) 1.31

3) The following table presents the probability distribution of the number of vacations  $X$  taken last year for a randomly chosen family. Compute the standard deviation  $\sigma$ .

3) \_\_\_\_\_

$x$	0	1	2	3	4
$P(x)$	0.11	0.64	0.13	0.1	0.02

A) 0.86

B) 1.28

C) 1.39

D) 0.74

4) If a gambler rolls two dice and gets a sum of 10, he wins \$10, and if he gets a sum of three, he wins \$20. The cost to play the game is \$5. What is the expectation of this game?

4) \_\_\_\_\_

A) \$2.78

B) -\$3.06

C) \$3.06

D) -\$2.78

5) A landscape contractor bids on jobs where he can make \$2700 profit. The probabilities of getting 1, 2, 3, or 4 jobs per month are shown.

5) \_\_\_\_\_

<b>Number of Jobs</b>	1	2	3	4
<b>Probability</b>	0.1	0.2	0.5	0.2

Find the contractor's expected profit per month.

A) \$2700

B) \$4860

C) \$1350

D) \$7560

6) If a person rolls doubles when she tosses two dice, she wins \$50. For the game to be fair, how much should she pay to play the game?

6) \_\_\_\_\_

A) \$6.25

B) \$12.50

C) \$8.33

D) \$10.00

7) A lottery offers one \$1000 prize, one \$500 prize, and two \$50 prizes. One thousand tickets are sold at \$2.50 each. Find the expectation if a person buys one ticket. 7) \_\_\_\_\_  
A) \$1.55                      B) -\$0.95                      C) -\$0.90                      D) \$1.60

8) A lottery offers one \$1000 prize, one \$500 prize, and four \$200 prizes. One thousand tickets are sold at \$3.00 each. Find the expectation if a person buys two tickets. 8) \_\_\_\_\_  
A) -\$0.70                      B) -\$2.60                      C) \$3.20                      D) -\$1.40

Answer Key

Testname: PRACTICE14

- 1) C
- 2) A
- 3) A
- 4) B
- 5) D
- 6) C
- 7) C
- 8) D