Expected Value & Binomial Probability · 1

The table shows the probability distribution of X. Find the expected value E(X).

x	-2	-1	1	8
P(x)	0.4	0.4	0.1	0.1

Expected Value & Binomial Probability · 2

A game costs nothing to enter. You win $15 with probability $\frac{1}{6}$; otherwise you lose $3. What is the expected value of the game in dollars? (Use a negative number for an expected loss.)

Expected Value & Binomial Probability · 3

A fair coin is tossed 5 times. What is the probability of getting exactly 2 heads? (fraction)

Expected Value & Binomial Probability · 4

A fair die is rolled 2 times. What is the probability of rolling a 3 exactly 1 time? (fraction)

Expected Value & Binomial Probability · 5

A basketball player makes 80% of free throws. In 60 attempts, what is the expected (mean) number of made shots?

Expected Value & Binomial Probability · 6

The table shows the probability distribution of X. Find the expected value E(X).

x	-2	2	6	9
P(x)	0.2	0.2	0.3	0.3

Expected Value & Binomial Probability · 7

A game costs nothing to enter. You win $32 with probability $\frac{1}{4}$; otherwise you lose $4. What is the expected value of the game in dollars? (Use a negative number for an expected loss.)

Expected Value & Binomial Probability · 8

A game costs nothing to enter. You win $52 with probability $\frac{1}{5}$; otherwise you lose $3. What is the expected value of the game in dollars? (Use a negative number for an expected loss.)

Expected Value & Binomial Probability · 2

ANSWER

0

Expected Value & Binomial Probability · 1

ANSWER

-0.3

Expected Value & Binomial Probability · 4

ANSWER

$$\frac{5}{18}$$

Expected Value & Binomial Probability · 3

ANSWER

$$\frac{5}{16}$$

Expected Value & Binomial Probability · 6

ANSWER

4.5

Expected Value & Binomial Probability · 5

ANSWER

48

Expected Value & Binomial Probability · 8

ANSWER

8

Expected Value & Binomial Probability · 7

ANSWER

5

The table shows the probability distribution of X. Find the expected value E(X).

x	-1	1	6	7
P(x)	0.3	0.3	0.1	0.3

A game costs nothing to enter. You win $47 with probability $\frac{1}{6}$; otherwise you lose $1. What is the expected value of the game in dollars? (Use a negative number for an expected loss.)

A fair die is rolled 4 times. What is the probability of rolling a 3 exactly 1 time? (fraction)

60% of the parts from a machine are defective. In a random sample of 4 parts, what is the probability that exactly 1 is defective? Round to the nearest thousandth.

A fair coin is tossed 5 times. What is the probability of getting exactly 3 heads? (fraction)

10% of the parts from a machine are defective. In a random sample of 5 parts, what is the probability that exactly 1 is defective? Round to the nearest thousandth.

A fair coin is tossed 3 times. What is the probability of getting exactly 1 heads? (fraction)

A fair die is rolled 3 times. What is the probability of rolling a 2 exactly 3 times? (fraction)

Expected Value & Binomial Probability · 10

ANSWER

7

Expected Value & Binomial Probability · 9

ANSWER

2.7

Expected Value & Binomial Probability · 12

ANSWER

0.154

Expected Value & Binomial Probability · 11

ANSWER

$$\frac{125}{324}$$

Expected Value & Binomial Probability · 14

ANSWER

0.328

Expected Value & Binomial Probability · 13

ANSWER

$$\frac{5}{16}$$

Expected Value & Binomial Probability · 16

ANSWER

$$\frac{1}{216}$$

Expected Value & Binomial Probability · 15

ANSWER

$$\frac{3}{8}$$

Expected Value & Binomial Probability · 17

The table shows the probability distribution of X. Find the expected value E(X).

x	-2	2	7	10
P(x)	0.2	0.2	0.1	0.5

Expected Value & Binomial Probability · 18

A game costs nothing to enter. You win $31 with probability $\frac{1}{2}$; otherwise you lose $5. What is the expected value of the game in dollars? (Use a negative number for an expected loss.)

Expected Value & Binomial Probability · 19

A fair die is rolled 2 times. What is the probability of rolling a 4 exactly 2 times? (fraction)

Expected Value & Binomial Probability · 20

70% of the parts from a machine are defective. In a random sample of 6 parts, what is the probability that exactly 4 are defective? Round to the nearest thousandth.

Expected Value & Binomial Probability · 21

A fair coin is tossed 6 times. What is the probability of getting exactly 6 heads? (fraction)

Expected Value & Binomial Probability · 22

40% of the parts from a machine are defective. In a random sample of 4 parts, what is the probability that exactly 2 are defective? Round to the nearest thousandth.

Expected Value & Binomial Probability · 23

A game costs nothing to enter. You win $21 with probability $\frac{1}{4}$; otherwise you lose $3. What is the expected value of the game in dollars? (Use a negative number for an expected loss.)

Expected Value & Binomial Probability · 24

A fair die is rolled 4 times. What is the probability of rolling a 1 exactly 1 time? (fraction)

Expected Value & Binomial Probability · 18

ANSWER

13

Expected Value & Binomial Probability · 17

ANSWER

5.7

Expected Value & Binomial Probability · 20

ANSWER

0.324

Expected Value & Binomial Probability · 19

ANSWER

$$\frac{1}{36}$$

Expected Value & Binomial Probability · 22

ANSWER

0.346

Expected Value & Binomial Probability · 21

ANSWER

$$\frac{1}{64}$$

Expected Value & Binomial Probability · 24

ANSWER

$$\frac{125}{324}$$

Expected Value & Binomial Probability · 23

ANSWER

3