Task card 1 Expected Value & Binomial Probabil...

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

x	-4	5	7	9
P(x)	0.3	0.3	0.3	0.1

Task card 2 Expected Value & Binomial Probabil...

A game costs nothing to enter. You win $5 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.)

Task card 3 Expected Value & Binomial Probabil...

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

Task card 4 Expected Value & Binomial Probabil...

30% of the parts from a machine are defective. In a random sample of 5 parts, what is the probability that exactly 4 are defective? Round to the nearest thousandth.

Task card 5 Expected Value & Binomial Probabil...

A fair coin is tossed 5 times. What is the probability of getting exactly 1 heads? (fraction)

Task card 6 Expected Value & Binomial Probabil...

10% of the parts from a machine are defective. In a random sample of 8 parts, what is the probability that exactly 3 are defective? Round to the nearest thousandth.

Task card 7 Expected Value & Binomial Probabil...

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

Task card 8 Expected Value & Binomial Probabil...

A fair coin is tossed 4 times. What is the probability of getting exactly 4 heads? (fraction)

Task card 9 Expected Value & Binomial Probabil...

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

x	-3	-2	8	10
P(x)	0.3	0.2	0.3	0.2

Task card 10 Expected Value & Binomial Probabil...

A game costs nothing to enter. You win $43 with probability $\frac{1}{4}$; otherwise you lose $5. What is the expected value of the game in dollars? (Use a negative number for an expected loss.)

Task card 11 Expected Value & Binomial Probabil...

A fair die is rolled 2 times. What is the probability of rolling a 6 exactly 1 time? (fraction)

Task card 12 Expected Value & Binomial Probabil...

60% of the parts from a machine are defective. In a random sample of 7 parts, what is the probability that exactly 1 is defective? Round to the nearest thousandth.

Task card 13 Expected Value & Binomial Probabil...

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

Task card 14 Expected Value & Binomial Probabil...

80% of the parts from a machine are defective. In a random sample of 6 parts, what is the probability that exactly 2 are defective? Round to the nearest thousandth.

Task card 15 Expected Value & Binomial Probabil...

A fair coin is tossed 8 times. What is the probability of getting exactly 5 heads? (fraction)

Task card 16 Expected Value & Binomial Probabil...

90% of the parts from a machine are defective. In a random sample of 6 parts, what is the probability that exactly 3 are defective? Round to the nearest thousandth.

Task card 17 Expected Value & Binomial Probabil...

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

x	-3	-1	4	5
P(x)	0.1	0.3	0.4	0.2

Task card 18 Expected Value & Binomial Probabil...

A game costs nothing to enter. You win \$57 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.)

Task card 19 Expected Value & Binomial Probabil...

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

Task card 20 Expected Value & Binomial Probabil...

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.

Task card 21 Expected Value & Binomial Probabil...

A fair coin is tossed 6 times. What is the probability of getting exactly 0 heads? (fraction)

Task card 22 Expected Value & Binomial Probabil...

60% of the parts from a machine are defective. In a random sample of 5 parts, what is the probability that exactly 4 are defective? Round to the nearest thousandth.

Task card 23 Expected Value & Binomial Probabil...

20% of the parts from a machine are defective. In a random sample of 6 parts, what is the probability that exactly 2 are defective? Round to the nearest thousandth.

Task card 24 Expected Value & Binomial Probabil...

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

x	-5	-4	7	10
P(x)	0.3	0.1	0.1	0.5

Expected Value & Binomial Probability Task Cards

Recording sheet · Grade 12 · Solve each problem. Give probabilities as fractions in simplest form or as decimals rounded the way the problem says.

Scan to check your answers

Name: _____ Date: _____

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Expected Value & Binomial Probability Task Cards: Answer Key

Grade 12 · Hard

The answers online

1. 3.3	**2.** -1	**3.** $\frac{5}{324}$
4. 0.028	**5.** $\frac{5}{32}$	**6.** 0.033
7. $\frac{5}{16}$	**8.** $\frac{1}{16}$	**9.** 3.1
10. 7	**11.** $\frac{5}{18}$	**12.** 0.017
13. $\frac{1}{64}$	**14.** 0.015	**15.** $\frac{7}{32}$
16. 0.015	**17.** 2	**18.** 7
19. $\frac{5}{18}$	**20.** 0.346	**21.** $\frac{1}{64}$
22. 0.259	**23.** 0.246	**24.** 3.8