Task card 1 Expected Value & Binomial Probabil...

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

Task card 2 Expected Value & Binomial Probabil...

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.)

Task card 3 Expected Value & Binomial Probabil...

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

Task card 4 Expected Value & Binomial Probabil...

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

Task card 5 Expected Value & Binomial Probabil...

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

Task card 6 Expected Value & Binomial Probabil...

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

Task card 7 Expected Value & Binomial Probabil...

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.)

Task card 8 Expected Value & Binomial Probabil...

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.)

Task card 9 Expected Value & Binomial Probabil...

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

Task card 10 Expected Value & Binomial Probabil...

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.)

Task card 11 Expected Value & Binomial Probabil...

A fair die is rolled 4 times. What is the probability of rolling a 3 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 4 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 5 times. What is the probability of getting exactly 3 heads? (fraction)

Task card 14 Expected Value & Binomial Probabil...

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.

Task card 15 Expected Value & Binomial Probabil...

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

Task card 16 Expected Value & Binomial Probabil...

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

Task card 17 Expected Value & Binomial Probabil...

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

Task card 18 Expected Value & Binomial Probabil...

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.)

Task card 19 Expected Value & Binomial Probabil...

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

Task card 20 Expected Value & Binomial Probabil...

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.

Task card 21 Expected Value & Binomial Probabil...

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

Task card 22 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 23 Expected Value & Binomial Probabil...

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.)

Task card 24 Expected Value & Binomial Probabil...

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

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 · Medium

The answers online

1. -0.3	**2.** 0	**3.** $\frac{5}{16}$
4. $\frac{5}{18}$	**5.** 48	**6.** 4.5
7. 5	**8.** 8	**9.** 2.7
10. 7	**11.** $\frac{125}{324}$	**12.** 0.154
13. $\frac{5}{16}$	**14.** 0.328	**15.** $\frac{3}{8}$
16. $\frac{1}{216}$	**17.** 5.7	**18.** 13
19. $\frac{1}{36}$	**20.** 0.324	**21.** $\frac{1}{64}$
22. 0.346	**23.** 3	**24.** $\frac{125}{324}$