Geometry B Name_____

Expected Value Games

Game 1 **Expected Value (show all work!):**

Cost is $3
Roll a fair die.
Payouts are as follows:

Roll	Payout
1	+2
2	+4
3	–3
4	+1
5	–2
6	+10

Game 2 **Expected Value (show all work!):**

Cost is $3
Bucket of Fish: 25 Blue, 15 Orange, 10 Green
Pick one fish without looking.

Payouts are as follows:
Blue = $7
Orange = $2
Green = $0

Game 3 **Expected Value (show all work!):**

Cost is $2
Pick one cube without looking

Cube colors and payouts are as follows:

Bucket of Cubes	Payout
5 purple	purple = $2
2 green	green=20
3 yellow	yellow=1
3 red	red = 4
4 blue	blue = -5 (you pay owner)
5 orange	orange =0

Game 4

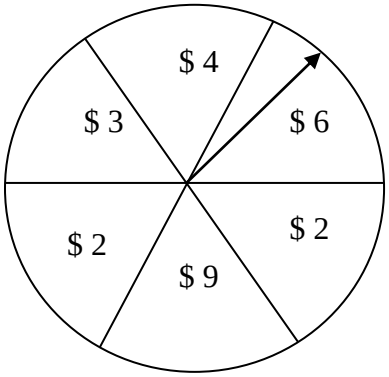
Expected Value (show all work!):

Cost is $5
Deck of just FACE cards and Aces (J,Q,K,A)
Draw one card.

Payouts are as follows:

Jack = $4
Queen= $0
King = $2
Ace = $12

Game 5
Cost is $4
Spin Spinner.



Payouts are as follows on Spinner.

Expected Value (show all work!):

Game 6
Cost is $5
Pick one card from a deck of cards
AND roll the matching number of a 6 sided die.

Expected Value (show all work!):

Payouts are as follows:

Draw/Roll	Payout
1	$10
2	$10
3	$10
4	$10
5	$10
6	$10

Game 7

Expected Value (show all work!):

Cost is $2
Bag of Marbles – 15 Purple, 10 Blue, 8 Yellow, 7 White
Pick one marble without looking **AND**
without putting the marble back,
picking another marble of the same color.

Payouts for matching both colors are as follows:

Purple = $ 4
Blue = $ 6
Yellow = $ 8
White = $ 10

Game 8

Expected Value (show all work!):

Cost is $ 8
Roll a 7 sided die **AND** flip a coin.

Payouts are as follows:

Even Number/Heads = $ 20
Odd Number/Tails = $20
Anything else = $0