

**Probability and Financial Literacy****1** Calculate the final amount when it changes by a percentage**\$60 minus 15% tax Add 20% tip to \$75**

A	\$45.90	B	\$51.00
C	\$68.85	D	\$73.95
E	\$48.45	F	\$43.35

2 Calculate the final amount when it changes by a percentage

A	\$90.00	B	\$54.00
C	\$94.50	D	\$45.00
E	\$49.50	F	\$117.00

3 Calculate the final number when it changes by a percentage**78% less than 20 \$100 grows by 15%**

A	3.9	B	4.65	C	4.4
D	2.15	E	2.9	F	4.9

4 Calculate the final amount when it changes by a percentage

A	\$63.25	B	\$120.75
C	\$74.75	D	\$115.00
E	\$92.00	F	\$86.25

5 Calculate the final number when it changes by a percentage**31% more than 90**

A	123.8	B	112.01
C	170.96	D	153.27
E	159.17	F	117.9

6 What percent did the number change by?**60 grows to 63**

A	20%	B	-10%	C	25%
D	0%	E	5%	F	-5%

7 What percent did the number change by?**20 grows to 26**

A	40%	B	60%	C	30%
D	50%	E	81%	F	0%

8 What percent did the number change by?**100 shrinks to 95**

A	-5%	B	-25%	C	20%
D	7%	E	0%	F	4%



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9 What percent did the number change by?

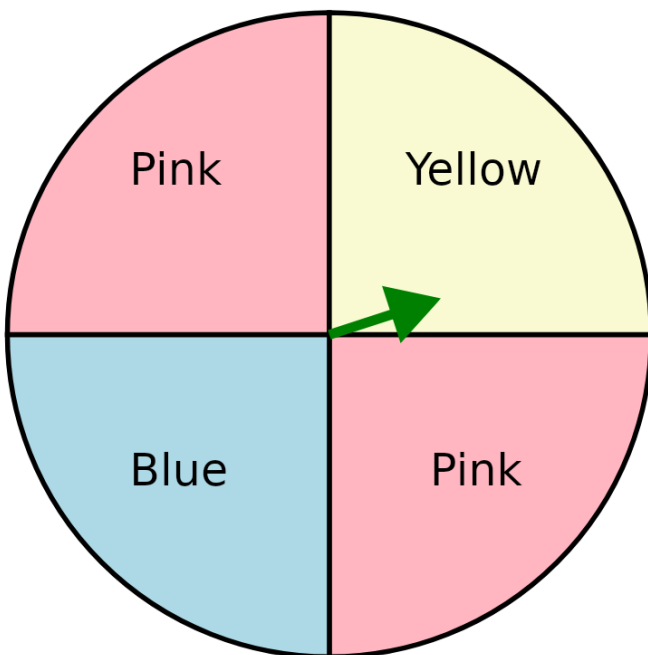
70 shrinks to 49

A -42%	B -10%	C 0%
D -20%	E -30%	F 24%

10 What is the simple interest in this situation?

A 208	B 272	C 240
D 160	E 288	F 144

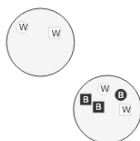
11 Calculate the probability of spinning Blue twice in a row. Show as a fraction



P(Blue twice)

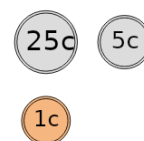
A $\frac{2}{16}$
B $\frac{1}{17}$
C $\frac{4}{16}$
D $\frac{1}{16}$

12 What is the chance of drawing a circle at random from both bags?



A 0.5	B 0.625	C 1
D 0.75	E 0.2	F 0.6

13 What is the chance of flipping a mixed set (not all heads or all tails) on these coins?

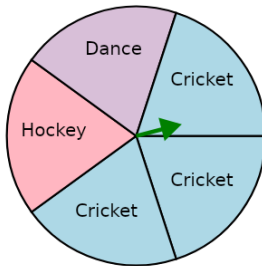


A 80%	B 66.7%	C 75%
D 50%	E 71.4%	F 77.8%



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- 14** Calculate the probability of spinning Cricket at least once, given two spins. Show as a fraction



P(Cricket in 2 spins)

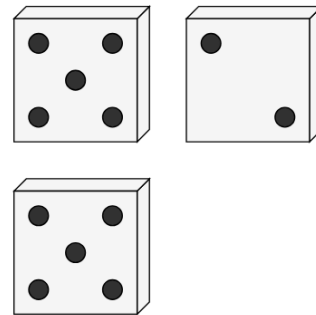
A	$\frac{25}{23}$	B	$\frac{19}{27}$
C	$\frac{17}{24}$	D	$\frac{23}{25}$
E	$\frac{21}{25}$		

- 15** What is the probability of getting a favourable outcome?

Two fair coins are flipped. A favourable outcome is one where there is exactly one head. There are 2 favourable outcomes.

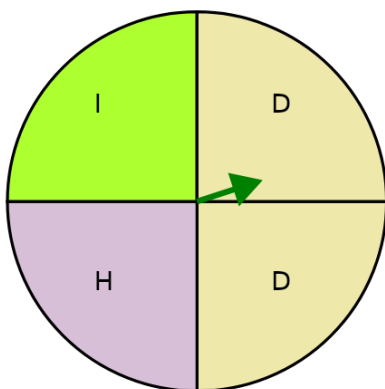
A	$\frac{2}{5}$	B	$\frac{1}{2}$
C	$\frac{3}{4}$	D	$\frac{1}{4}$

- 16** What is the chance of rolling the same number on all these dice?



A	$\frac{3}{57}$	B	$\frac{2}{6}$
C	$\frac{1}{38}$	D	$\frac{2}{44}$
E	$\frac{1}{36}$	F	$\frac{2}{32}$

- 17** Calculate the probability of spinning D twice in a row. Show as a decimal



P(D twice)

A	0.21	B	0.5	C	0.19
D	0.44	E	0.25	F	0.29

- 18** What is the probability of getting a favourable outcome?

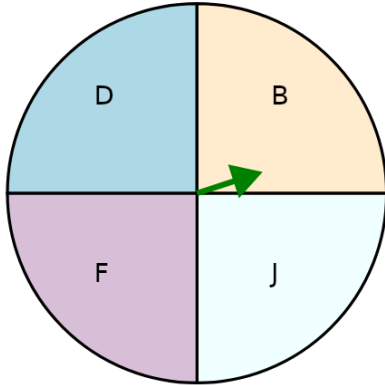
Three fair coins are flipped. There are 8 equally likely outcomes in the sample space. A favourable outcome is one where there is exactly one tail.

A	$\frac{3}{8}$	B	$\frac{5}{8}$
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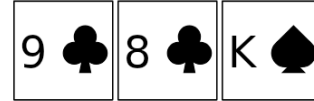
- 19** Calculate the probability of spinning F twice in a row. Show as a percent



P(F twice)

A 25%	B 5%	C 19%
D 7%	E 31%	F 6%

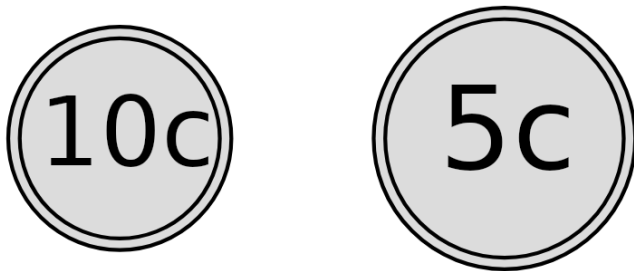
- 20** Calculate the probability of drawing 8, 9 in order. Show as a fraction



P(8, 9 in order)

A $\frac{10}{21}$	B $\frac{7}{14}$
C $\frac{1}{6}$	D $\frac{8}{8}$
E $\frac{7}{17}$	

- 21** What is the chance of flipping at least one tails on these coins?



A $\frac{3}{4}$	B $\frac{7}{3}$
C $\frac{1}{3}$	D $\frac{7}{6}$
E $\frac{5}{5}$	F $\frac{4}{4}$

- 22** Including the fee, what single yearly interest rate is equivalent to this investment? Round to one decimal place.

Investment Details	
Principal	\$2,100
Interest Rate	12.5%
Term	1 year
Fees	\$48.30

A 9.7%	B 14.8%	C 12.5%
D 10.7%	E 7.9%	F 10.2%



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23 Which option is the better loan (the lower total cost)?

Option A: Loan

Principal	\$1,500
Interest Rate	6.3%
Term	1 year
Fees	\$58.50

Option B: Loan

Principal	\$1,500
Interest Rate	10.5%
Term	1 year
Fees	None

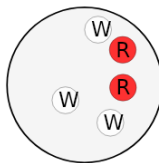
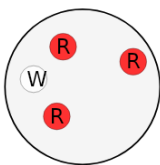
A

A

B

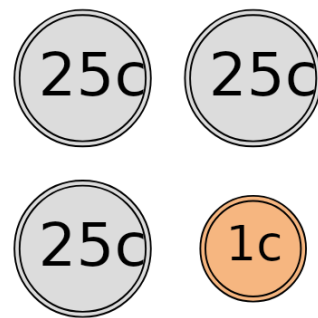
B

24 What is the chance of drawing a red circle at random from both bags?



A	$\frac{2}{8}$	B	$\frac{6}{20}$
C	$\frac{1}{4}$	D	$\frac{4}{6}$
E	$\frac{4}{10}$	F	$\frac{1}{3}$

25 What is the chance of flipping heads on all these coins?

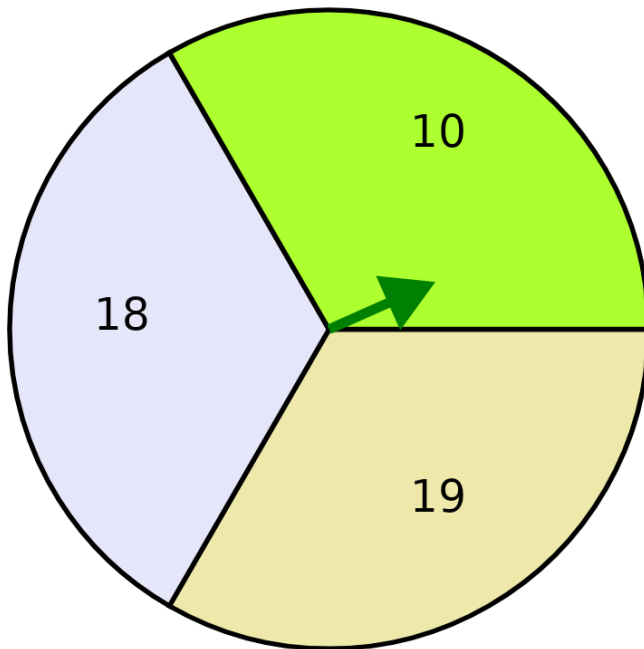


A	$\frac{2}{16}$	B	$\frac{1}{18}$
C	$\frac{2}{11}$	D	$\frac{2}{13}$
E	$\frac{2}{7}$	F	$\frac{1}{16}$



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26 Calculate the probability of spinning a prime number. Show as a fraction



P(prime)

A

$$\frac{1}{3}$$

B

$$\frac{2}{7}$$

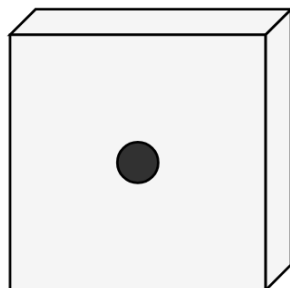
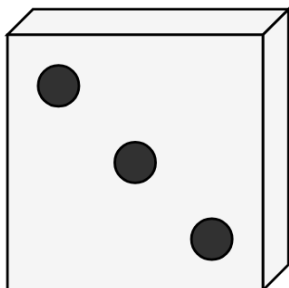
C

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

D

$$\frac{3}{5}$$

27 What is the equation for the chance of rolling at least one 4 on these dice?



A

$$\frac{1}{6} + \frac{1}{6} - \frac{1}{6} \cdot \frac{1}{6}$$

B

$$1 - \frac{1}{6} \cdot \frac{1}{6}$$

C

$$\frac{1}{6} \cdot \frac{1}{6}$$

D

$$\frac{1}{6}$$



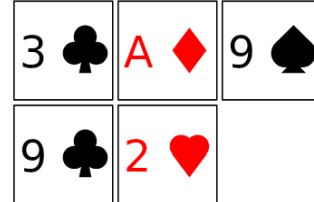
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28 What is the chance of flipping all heads or all tails on these coins?



A	$\frac{1}{8}$	B	$\frac{2}{9}$
C	$\frac{2}{6}$	D	$\frac{1}{11}$
E	$\frac{2}{4}$	F	$\frac{1}{4}$

29 Calculate the probability of drawing Ace, 2, 3 in order. Show as a fraction



P(A, 2, 3 in order)

A	$\frac{4}{5}$	B	$\frac{1}{60}$
C	$\frac{3}{5}$	D	$\frac{14}{19}$
E	$\frac{5}{9}$		

30 List all the possible outcomes in the sample space.

A fair coin is flipped and a spinner with red, green, and blue sections is spun.

A

(H, R) (H, G) (H, B) (T, R) (T, G)
(T, B) (H, R) (H, G) (H, B) (T, R)
(T, G) (T, B)

B

(H, R) (H, G) (H, B) (T, R) (T, G)
(T, B)