

9A Probability

1.
 - a. 17
 - b. 10 even
 - c. 7
 - d. 8
 - e. 6
 - f. $\frac{7}{17}$
 - g. $\frac{11}{17}$

2.
 - a. 1
 - b. 7

3.
 - a. $\frac{26}{52}$
 - b. $\frac{28}{52}$
 - c. $\frac{14}{52}$
 - d. $\frac{28}{52}$
 - e. $\frac{9}{52}$
 - f. $\frac{28}{52}$
 - g. $\frac{26}{52}$

4.
 - a. $\frac{4}{19}$
 - b. $\frac{6}{19}$
 - c. $\frac{3}{19}$
 - d. $\frac{5}{19}$
 - e. $\frac{11}{19}$

5. $x=8,9,10,11,12,13,14,15$

6. $x=11, 12, 13, 14, 15, 16, 17, 18, 19, 20$

9B Two-step Experiment

1. a.

	5	6	7	8
F	(5, F)	(6, F)	(7, F)	(8, F)
O	(5, O)	(6, O)	(7, O)	(8, O)
O	(5, O)	(6, O)	(7, O)	(8, O)
D	(5, D)	(6, D)	(7, D)	(8, D)

b. 16

c. $\frac{1}{16}$

d. $\frac{4}{16}$

2. a. $\frac{1}{16}$

b. $\frac{1}{16}$

c. $\frac{2}{16}$

3. a.

	R (Right)	R (Right)	G (Right)	B (Right)
R (Left)	(R, R)	(R, R)	(R, G)	(R, B)
R (Left)	(R, R)	(R, R)	(R, G)	(R, B)
R (Left)	(R, R)	(R, R)	(R, G)	(R, B)
R (Left)	(R, R)	(R, R)	(R, G)	(R, B)
G (Left)	(G, R)	(G, R)	(G, G)	(G, B)
G (Left)	(G, R)	(G, R)	(G, G)	(G, B)
G (Left)	(G, R)	(G, R)	(G, G)	(G, B)

b. $\frac{7}{28}$

c. $\frac{3}{28}$

d. $\frac{4}{28}$

e. $\frac{1}{7}$

f. $\frac{8}{28}$

4. 32

5. 60

6. Independent

Dependent

Independent

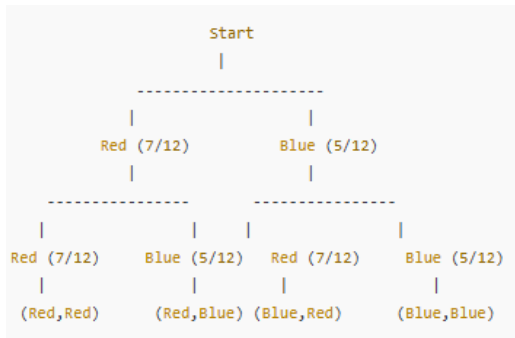
Independent

Dependent

Dependent

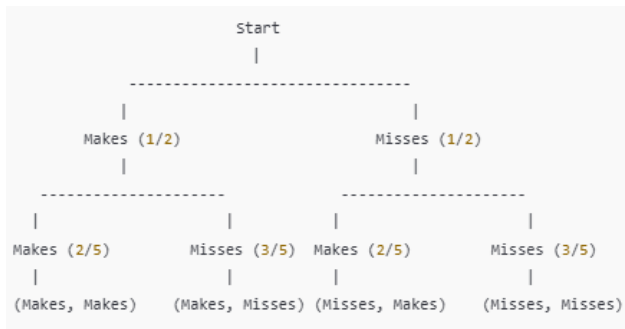
9C Tree diagrams

1. a.



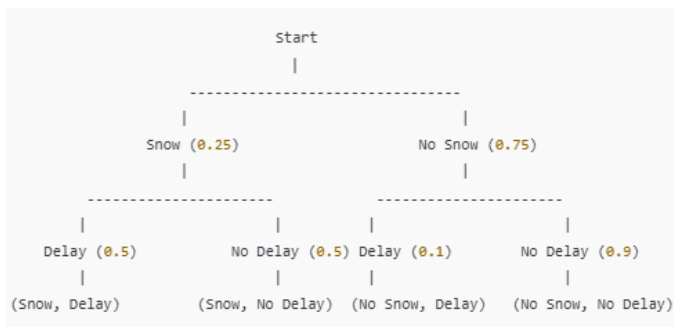
b. $\frac{74}{144}$
 c. $\frac{70}{144}$

2. a.



b. $\frac{7}{10}$
 c. $\frac{3}{10}$

3. a.



b. 0.2

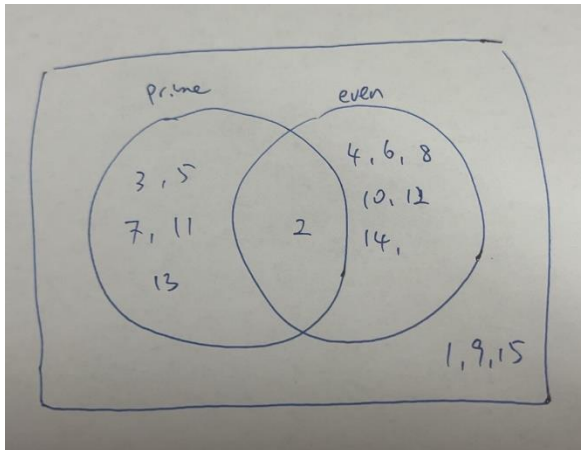
4. a. $\frac{1}{12}$
 b. $\frac{1}{9}$

9D Venn Diagrams and two-way table

1. a. 37
- b. 46
- c. 29
- d. 20
- e. 24
- f. 41
- g.

	Leadership Development	Not in Leadership Development	Total
Team Building	9	37	46
Not in Team Building	20	4	24
Total	29	41	70

2.



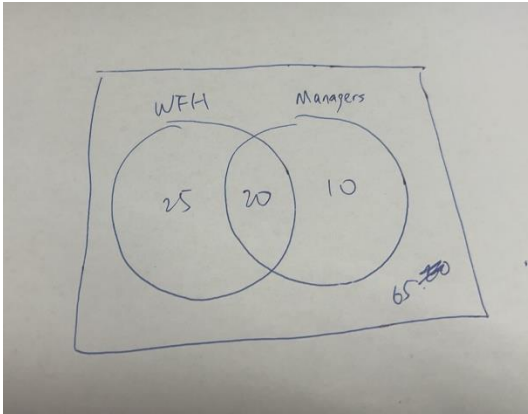
3. a. 71
- b. $\frac{37}{71}$
- c. $\frac{28}{71}$
- d. $\frac{4}{71}$

4. a.

	Prefer WFH	Don't Prefer WFH	Total
Managers	20	10	30
Staff	25	20	45
Total	45	30	120

b. $\frac{45}{12} = \frac{3}{8}$

c.



9E Experimental probability

1. a. 27

b.

333,334,337,343,344,347,373,374,377,433,434,437,443,444,447,473,474,477,
733,734,737,743,744,747,773,774,777

c. $\frac{9}{27}$

d. $\frac{18}{27}$

e. 0

2. a. 150

b. $\frac{45}{150}$

c. $\frac{2}{3}$

d. 30

3. a. 100

b. $\frac{25}{100}$

c. $\frac{25}{100}$

d. 350

4. a. 110

b. $\frac{18}{110} = \frac{9}{55}$

c. $\frac{38}{110} = \frac{19}{55}$

d. $\frac{17}{110}$

e. $\frac{12}{110} = \frac{6}{55}$

f. $\frac{24}{110} = \frac{12}{55}$

g. 2536