

Elementary Probability Solutions

1. i. $\frac{1}{6}$
ii. $\frac{1}{2}$
iii. $\frac{1}{3}$

2. i. $\frac{1}{3}$
ii. $\frac{5}{12}$
iii. $\frac{1}{12}$
iv. $\frac{1}{6}$
v. $\frac{5}{8}$

3. i. $\frac{1}{13}$
ii. $\frac{1}{4}$
iii. $\frac{3}{13}$
iv. $\frac{1}{26}$
v. $\frac{5}{13}$

4. i. $\frac{1}{52}$
ii. $\frac{1}{2}$
iii. $\frac{1}{4}$
iv. $\frac{1}{13}$
v. $\frac{3}{13}$
vi. $\frac{3}{26}$
vii. $\frac{5}{13}$
viii. $\frac{12}{13}$
ix. 0

5. i. $\frac{9}{17}$
ii. $\frac{8}{17}$
iii. $\frac{5}{17}$
iv. $\frac{4}{17}$

6. i. $\frac{2}{5}$
ii. 4

7.
 - i. $\frac{1}{8}$
 - ii. $\frac{1}{4}$
 - iii. $\frac{3}{8}$
 - iv. $\frac{1}{2}$
8. $\frac{3}{10}$
9.
 - i. $\frac{1}{2}$
 - ii. $\frac{1}{6}$
 - iii. $\frac{2}{3}$
 - iv. $\frac{1}{2}$
10.
 - i.
 - (a) $\frac{2}{5}$
 - (b) $\frac{3}{5}$
 - (c) $\frac{3}{20}$
 - (d) $\frac{1}{2}$
 - (e) $\frac{1}{20}$
 - ii. $\frac{1}{8}$
 - iii.
 - (a) $\frac{2}{3}$
 - (b) $\frac{7}{17}$
11.
 - i. $\frac{1}{12}$
 - ii. $\frac{1}{4}$
 - iii. $\frac{1}{6}$
 - iv. $\frac{1}{3}$
12.
 - i. $\frac{1}{4}$
 - ii. $\frac{1}{2}$
 - iii. $\frac{3}{4}$
13.
 - i. $\frac{8}{15}$
 - ii. $\frac{2}{15}$
 - iii. $\frac{11}{30}$
14.
 - i. $\frac{1}{3}$
 - ii. $\frac{4}{9}$
 - iii. $\frac{7}{9}$
 - iv. $\frac{5}{9}$
15.
 - i. $\frac{1}{36}$
 - ii. $\frac{1}{12}$
 - iii. $\frac{1}{9}$

16. i. $\frac{2}{9}$
ii. $\frac{1}{9}$
17. i. $\frac{1}{4}$
ii. $\frac{1}{6}$
iii. $\frac{1}{6}$
18. $\frac{3}{5}$
19. i. $\frac{1}{3}$
ii. $\frac{5}{36}$
iii. $\frac{1}{6}$