

Chapter 40 Chance

Page 165 2. (a) impossible
(d) absolutely certain

(b) highly likely
(e) most unlikely

(c) possible
(f) an even chance

Page 166 1. (a) probable
(e) improbable
(i) improbable

(b) impossible
(f) improbable
(j) improbable

(c) improbable
(g) probable

(d) impossible
(h) impossible

2. 2 in 4, 1 in 2, $\frac{1}{2}$, 50%, 0.5, 0.5 **or** evens

3. 1 in 4, $\frac{1}{4}$, 25% **or** 0.25

4. 1 in 2, $\frac{1}{2}$ 50%, 0.5 **or** evens

Page 167 1. (a) 1 in 6 or $\frac{1}{6}$
(e) 3 in 6 or $\frac{1}{2}$
(i) 0 in 6 or 0

(b) 1 in 6 or $\frac{1}{6}$
(f) 2 in 6 or $\frac{1}{3}$
(j) 1 in 6 or $\frac{1}{6}$

(c) 1 in 6 or $\frac{1}{6}$
(g) 1 in 6 or $\frac{1}{6}$

(d) 3 in 6 or $\frac{1}{2}$
(h) 3 in 6 or $\frac{1}{2}$

Page 168 1. (a) 52

(b) 26

(c) 26

(d) 12

(e) (i) 13 in 52 or $\frac{1}{4}$

(ii) 13 in 52 or $\frac{1}{4}$

(iii) 26 in 52 or $\frac{1}{2}$

(iv) 12 in 52 or $\frac{3}{13}$

(v) 4 in 52 or $\frac{1}{13}$

(vi) 2 in 52 or $\frac{1}{26}$

2. (a) 50

(b) **What are the chances of picking**

a King?

a red ace?

the ace of hearts?

any heart?

a red card?

chances

fraction

decimal

%

4 in 50

$\frac{4}{50}$ or $\frac{8}{100}$

0.08

8%

2 in 50

$\frac{2}{50}$ or $\frac{4}{100}$

0.04

4%

1 in 50

$\frac{1}{50}$ or $\frac{2}{100}$

0.02

2%

13 in 50

$\frac{13}{50}$ or $\frac{26}{100}$

0.26

25%

26 in 50

$\frac{12}{50}$ or $\frac{24}{100}$

0.24

24%

6. 28.9

7. 24

8. 23

9. 69

10. 47

11. 63

12. 67

13. 38

14. 26.8

15. 0.79