

13.2 Answers

13.2.1 Solutions (13.1 Test)

Answer 1

- (a)** **(i)** $\frac{1}{7}$ **(b)** It's palindromic (A palindrome)
 (ii) $\frac{5}{7}$
 (iii) $\frac{2}{7}$
 (iv) $\frac{4}{7}$

Answer 2

- (a)** **(i)** 10% **(b)** 40
 (ii) 70%
 (iii) 40%

Answer 3

- (a)** **(i)** 50% **(b)** 100%
 (ii) $33\frac{1}{3}\%$
 (iii) $16\frac{2}{3}\%$

Answer 4

- (i)** 25%
(ii) 56%
(iii) 42%
(iv) 12%
(v) 75%

Answer 5

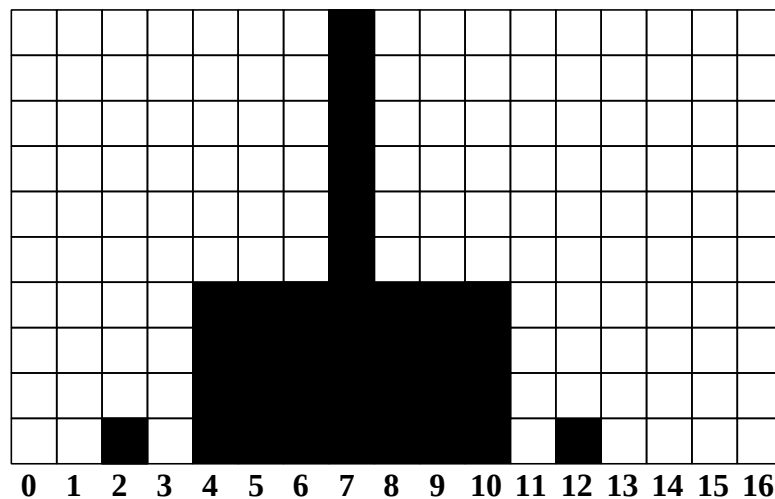
71.4%

Answer 6

(a)

						
	2	4	4	5	5	7
	4	6	6	7	7	9
	4	6	6	7	7	9
	5	7	7	8	8	10
	5	7	7	8	8	10
	7	9	9	10	10	12

(b)



Make a note that either each square represents a probability of $\frac{1}{36}$ on add numbers and labels to the y-axis

- (c) (i) 7
(ii) 2, 12
(iii) $\frac{18}{36}$ or $\frac{1}{2}$

Answer 7

Frequencies : 24 15 3 18
Probabilities ; 40% 25% 5% 30%

The dice may be biased against “web” and in favour of “TV”

Answer 8

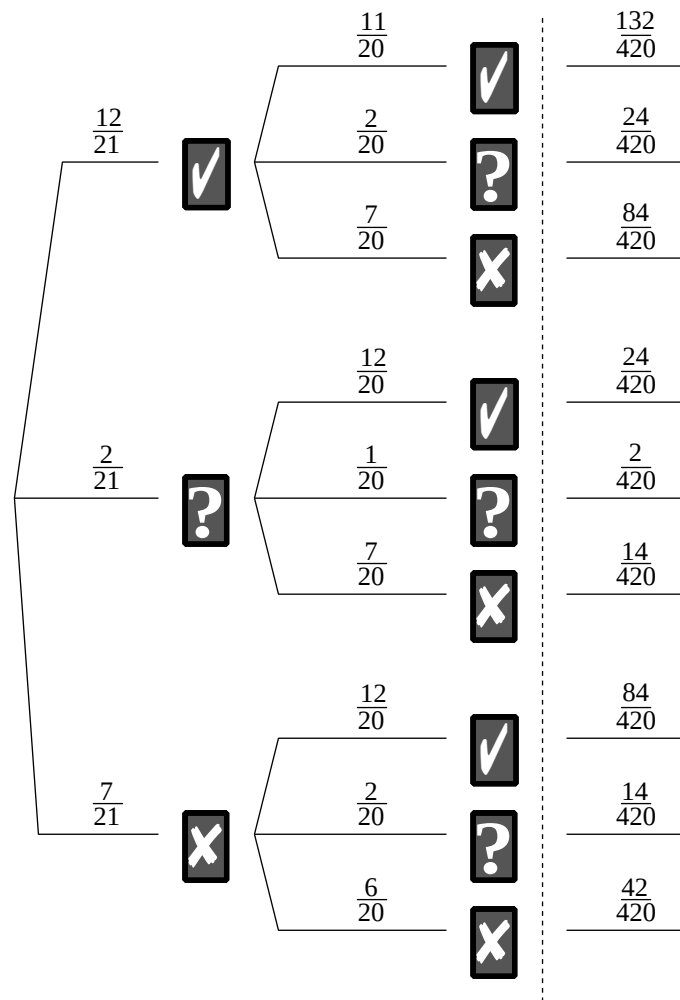
- (i) $\frac{1}{25}$
(ii) $\frac{1}{25}$
(iii) $\frac{1}{25}$
(iv) $\frac{4}{25}$
(v) $\frac{7}{25}$

Answer 9

- (i) $\frac{3}{121}$
(ii) $\frac{6}{121}$
(iii) $\frac{1}{121}$
(iv) $\frac{30}{121}$
(v) $\frac{60}{121}$
(vi) $\frac{25}{121}$

Answer 10

(i)

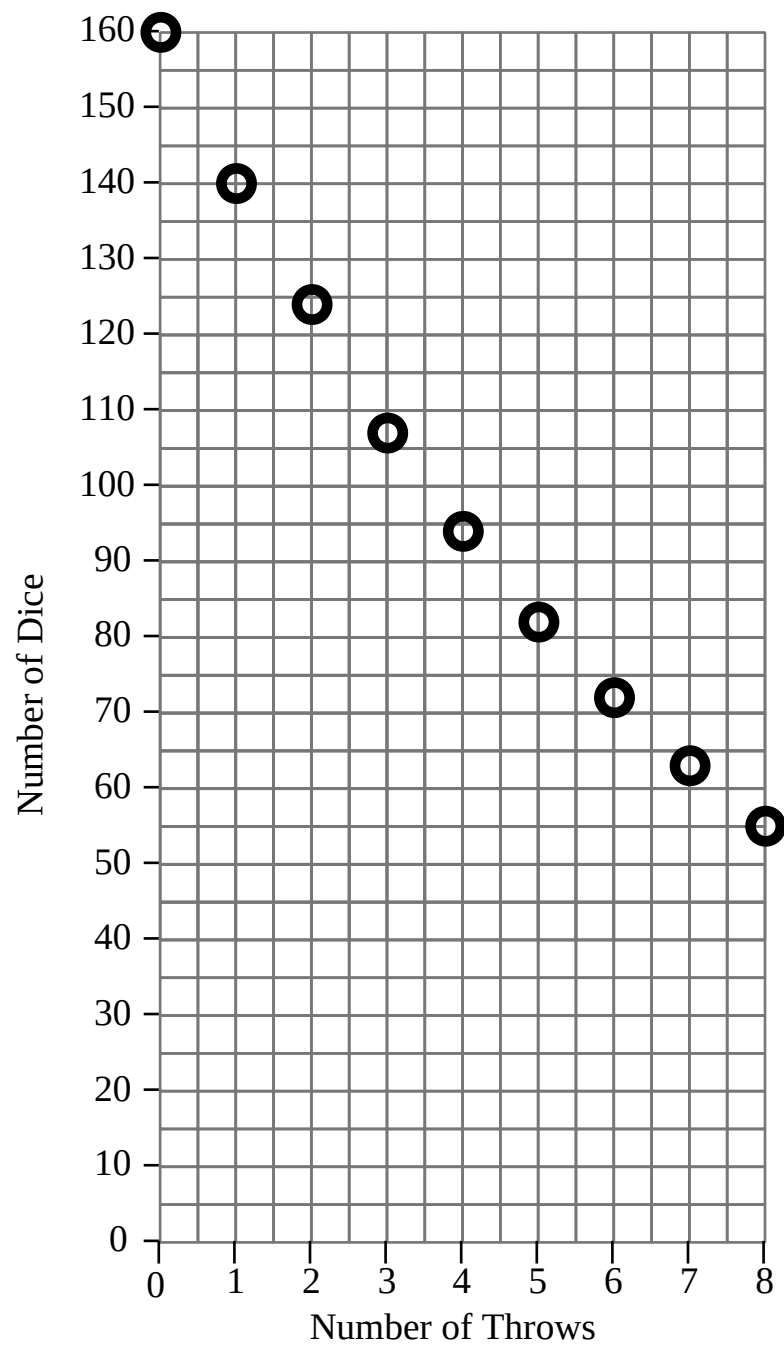


(ii)

$$\begin{aligned}
 p(\text{snap}) &= \frac{132}{420} + \frac{2}{420} + \frac{42}{420} \\
 &= \frac{176}{420}
 \end{aligned}$$

This is about 0.419, that is 42%

Answer 11



N° of Rolls	0	1	2	3	4	5	6	7	8
N° of Dice	160	140	123	107	94	82	72	63	55

To half takes about 5.2 throws. $\therefore$ After 6 throws.

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Teachers may obtain detailed worked solutions to the exercises by email from MHHSshrewsbury@Gmail.com