

Probability from Two-Way Tables

ANSWERS

1

One student is picked at random.
Find $P(\text{girl who walks})$.

	Walk	Bus	Total
Boys	5	4	9
Girls	7	4	11
Total	12	8	20

$$P = \frac{7}{20}$$

the ones you want
everyone

2

One person is picked at random.
Find $P(\text{child who swims})$.

	Swim	Gym	Total
Adults	5	8	13
Children	9	3	12
Total	14	11	25

$$P = \frac{9}{25}$$

the ones you want
everyone

3

One student is picked at random.
Find $P(\text{Year 8 who chose tea})$.

	Tea	Juice	Total
Year 7	4	9	13
Year 8	11	6	17
Total	15	15	30

$$P = \frac{11}{30}$$

the ones you want
everyone

4

One student is picked at random.
Find $P(\text{boy})$.

	Cat	Dog	Total
Boys	7	6	13
Girls	9	3	12
Total	16	9	25

$$P = \frac{13}{25}$$

the ones you want
everyone

5

One person is picked at random.
Find $P(\text{woman who chose coffee})$.

	Tea	Coffee	Total
Men	8	13	21
Women	12	7	19
Total	20	20	40

$$P = \frac{7}{40}$$

the ones you want
everyone

6

One student is picked at random.
Find $P(\text{cold lunch})$.

	Hot	Cold	Total
Year 9	9	6	15
Year 10	8	7	15
Total	17	13	30

$$P = \frac{13}{30}$$

the ones you want
everyone

7

One student is picked at random.
Find $P(\text{Year 8 who chose swim})$.

	Swim	Run	Jump	Total
Year 7	4	6	3	13
Year 8	7	2	8	17
Total	11	8	11	30

$$P = \frac{7}{30}$$

the ones you want
everyone

8

$P = \frac{11}{30}$. Ring the ones you want in the table. Who are they?

	Pizza	Pasta	Total
Boys	6	9	15
Girls	11	4	15
Total	17	13	30

$$P = \frac{11}{30}$$

the ones you want
everyone

Who? girls who chose pizza

Probability from Two-Way Tables *further practice*

ANSWERS

9



One student is picked at random.
Find $P(\text{boy who chose art})$.

	Chess	Art	Total
Boys	7	11	18
Girls	9	13	22
Total	16	24	40

$$P = \frac{\boxed{11}}{\boxed{40}}$$

the ones you want
everyone

10



One visitor is picked at random.
Find $P(\text{picnic})$.

	Café	Picnic	Total
Adults	12	9	21
Children	5	14	19
Total	17	23	40

$$P = \frac{\boxed{23}}{\boxed{40}}$$

the ones you want
everyone

11



One student is picked at random.
Find $P(\text{Year 9 who walks})$.

	Walk	Bus	Total
Year 7	6	5	11
Year 8	8	3	11
Year 9	9	4	13
Total	23	12	35

$$P = \frac{\boxed{9}}{\boxed{35}}$$

the ones you want
everyone

12



One person is picked at random.
Find $P(\text{child who saw Film B})$.

	Film A	Film B	Total
Adults	13	8	21
Children	6	23	29
Total	19	31	50

$$P = \frac{\boxed{23}}{\boxed{50}}$$

the ones you want
everyone

13



Fill in the totals.
Then find $P(\text{girl who swims})$.

	Swim	Run	Total
Boys	4	7	11
Girls	9	5	14
Total	13	12	25

Everyone: 25. Girls who swim: 9.

Answer $\frac{9}{25}$

14



One person is picked at random.
Find $P(\text{man})$.

	Tea	Milk	Juice	Total
Men	6	9	4	19
Women	8	5	8	21
Total	14	14	12	40

Everyone: 40. Men: 19.

Answer $\frac{19}{40}$

15



Which is more likely to be picked:
a Year 7 who walks or
a Year 8 who walks? Explain.

	Walk	Bus	Total
Year 7	9	13	22
Year 8	12	6	18
Total	21	19	40

$\frac{12}{40}$ is more than $\frac{9}{40}$

Answer a Year 8 who walks

16



Sam says $P(\text{girl who walks}) = \frac{9}{16}$.
What has Sam done wrong?

	Walk	Bus	Total
Boys	8	6	14
Girls	9	7	16
Total	17	13	30

Sam should have put

30 on the bottom, not 16

Right answer $\frac{9}{30}$