Probability Worksheet (Not Equally Likely Outcomes)

Wayne asked every student in his class how many siblings (brothers and sisters) they had. The survey results are shown in the table below. (Wayne included himself in the results.)

Number of Siblings	0	1	2	3	4
Number of Students	4	5	14	6	3

(Note: The table tells us that 4 students had no siblings, 5 students had one sibling, 14 students had two siblings, and so on.)

1. How many students are in Wayne's class, including Wayne?

2. What is the probability that a randomly selected student does not have any siblings? Write your answer as a fraction in lowest terms.

3. The table below shows the possible number of siblings and the probabilities of each number. Complete the table by writing the probabilities as fractions in lowest terms.

Number of Siblings	0	1	2	3	4
Probability					

4. Writing your answers as fractions in lowest terms, find the probability that the student:

    i. Has fewer than two siblings

    ii. Has two or fewer siblings

    iii. Does not have exactly one sibling

Go to onlinemathlearning.com for more free math resources

Probability Worksheet (Not Equally Likely Outcomes)

Wayne asked every student in his class how many siblings (brothers and sisters) they had. The survey results are shown in the table below. (Wayne included himself in the results.)

Number of Siblings	0	1	2	3	4
Number of Students	4	5	14	6	3

(Note: The table tells us that 4 students had no siblings, 5 students had one sibling, 14 students had two siblings, and so on.)

1. How many students are in Wayne's class, including Wayne?

$$4 + 5 + 14 + 6 + 3 = 32$$

2. What is the probability that a randomly selected student does not have any siblings? Write your answer as a fraction in lowest terms.

$$\frac{4}{32} = \frac{1}{8}$$

3. The table below shows the possible number of siblings and the probabilities of each number. Complete the table by writing the probabilities as fractions in lowest terms.

Number of Siblings	0	1	2	3	4
Probability	$\frac{1}{8}$	$\frac{5}{32}$	$\frac{7}{16}$	$\frac{3}{16}$	$\frac{3}{32}$

4. Writing your answers as fractions in lowest terms, find the probability that the student:

   i. Has fewer than two siblings

   $$\frac{1}{8} + \frac{5}{32} = \frac{9}{32}$$

   ii. Has two or fewer siblings

   $$\frac{1}{8} + \frac{5}{32} + \frac{7}{16} = \frac{23}{32}$$

   iii. Does not have exactly one sibling

   $$1 - \frac{5}{32} = \frac{27}{32}$$

Go to onlinemathlearning.com for more free math resources