| Learning <br> Objective: | Two way Tables | Name: |  |
| :--- | :--- | ---: | :--- |
|  | Date: |  |  |

## Do NOW Activity:

1 Work out $£ 122.99+£ 8.50-£ 50.99$
2 Evaluate $2^{5}$

3 Solve $20-9 x=11$

4 Round 0.0192 correct to 1 significant figure
5 Work out -3--10

## PRIOR KNOWLEDGE CHECK:

1. I can find multiples and factors

## THE MAIN EVENT

## WORKED EXAMPLE \#1:

Below are 12 cards from a game.

(a) Complete this two-way table.

|  | Red | Green |
| :--- | :---: | :---: |
| Square | 4 | 1 |
| Circle | 2 | 5 |

80 students visited the library over three days.
The two-way table shows some information about these students.

|  | Monday | Tuesday | Wednesday | Total |
| :--- | :---: | :---: | :---: | :---: |
| Female | 7 | 18 | 13 | 38 |
| Male | 14 | 15 | 13 | 42 |
| Total | 21 | 33 | 26 | 80 |

(a) Complete the two-way table.
(b) Write down the probability that the student is a female

$$
\frac{38}{80}
$$

## PRACTICE \#1:

Question 1: Complete the two way table to show the information about the shapes below.


|  | Rhombus | Star | Total |
| :---: | :--- | :--- | :--- |
| Red |  |  |  |
| Yellow |  |  |  |
| Total |  |  |  |

Question 2: 50 children were asked if they wanted to go bowling or to the cinema.
17 girls and 11 boys wanted to go bowling
12 boys wanted to go to the cinema.
(a) Use this information to complete the two-way table below.

|  | Bowling | Cinema | Total |
| :--- | :--- | :--- | :--- |
| Boys |  |  |  |
| Girls |  |  |  |
| Total |  |  |  |

(b) How many children, in total, want to go to the cinema?

Question 3: Complete the following two way tables:
(a)

|  | Car | Bus | Walk | Total |
| :--- | :---: | :---: | :---: | :---: |
| Year 9 | 10 | 8 |  | 24 |
| Year 10 |  | 7 | 5 |  |
| Total | 16 |  |  | 42 |

(b)

|  | English | Art | Total |
| :---: | :---: | :---: | :---: |
| Pass | 25 |  |  |
| Fail |  | 12 | 13 |
| Total |  | 19 |  |

(c)

|  | Rugby | Football | Hockey | Total |
| :---: | :---: | :---: | :---: | :---: |
| Class 9A | 7 |  | 6 | 24 |
| Class 9B |  | 3 |  |  |
| Total | 12 |  |  | 40 |

(d)

|  | Child | Adult | Total |
| :---: | :---: | :---: | :---: |
| Male | 52 |  | 86 |
| Female |  | 43 |  |
| Total |  |  | 178 |

Question 4: This two-way table shows information about the students in years 8, 9 and 10.

|  | Year 8 | Year 9 | Year 10 |
| :---: | :---: | :---: | :---: |
| Boys | 45 | 38 | 51 |
| Girls | 32 | 52 | 28 |

(a) Find the total number of students in year 8.
(b) Find the total number of girls in years 8,9 and 10.
(c) What fraction of the students are in year 10?
(d) What fraction of year 9 students are girls?

Question 5: This two-way table shows the number of goals scored in each match by three football teams throughout January, February and March.

|  | Rovers | City | United |
| :---: | :---: | :---: | :---: |
| 0 goals | 8 | 3 | 5 |
| 1 goal | 3 | 8 | 9 |
| 2 or more | 7 | 9 | 4 |

(a) Find the number of matches that Rovers played.
(b) Find the number of matches where 1 goal was scored by these teams.
(c) In what percentage of their matches did City score no goals?
(d) Find the fraction of United's matches where they scored 2 or more goals.

## APPLICATION

There are 120 students in Year 11 at a school.
Each student studies one language, either French, Spanish, German or Welsh.
21 of the 40 students studying Welsh are male.
18 males and 9 females study French.
12 of the 17 students studying Spanish are female.
Twice as many females study German than males.
How many students in Year 11 are female?

