Guide to: Frequency trees

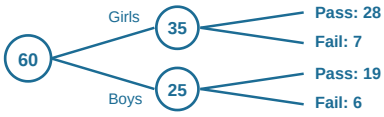
maths Links

Explanation:

A **frequency tree** organises data by splitting a total group into two categories, and then splitting each branch further. The two branches coming out of any circle must always **add up to the number inside that circle**.

Work through the clues step by step, filling in any numbers given directly and subtracting from the parent circle to find the partner branch. When asked for a probability at the end, check carefully whether it is out of the **whole group** or a **specific subgroup**.

Example 1: 60 students sat a test. **35** are girls. **28 girls** passed. In total, **47 students** passed. Complete the frequency tree.



Boys = 60 − 35 = **25**; Girls Fail = 35 − 28 = **7**
Boys Pass = 47 − 28 = **19**; Boys Fail = 25 − 19 = **6**

Example 2: Using the frequency tree from Example 1:
(a) One student is chosen at random. Find P(Boy who failed).
(b) A **boy** is chosen at random. Find P(Passed).

Solution:

(a) Out of all 60 students, 6 are boys who failed:
P(Boy who failed) = $\frac{6}{60} = \mathbf{\frac{1}{10}}$
(b) Out of the **25 boys**, 19 passed:
Answer: (a) $\mathbf{\frac{6}{60}}$ **(or** $\mathbf{\frac{1}{10}}$**) (b)** $\mathbf{\frac{19}{25}}$

Worksheets and other links					
Video Lesson on this topic	Video		**Maths Made Easy**	Qs	Ans
Ken Stafford (Past Paper Qs)	Qs	Ans	**Metatutor**	Qs	Ans
Maths Genie	Qs	Ans	**E Classroom**	Qs	Ans
Corbettmaths (Practice)	Qs	Ans	**esheets - Online practice**	link	
Corbettmaths (Textbook)	Qs	Ans			

Questions by topic | **Past Papers** | **Maths worksheets**

Buy workbook | **Quizzes** | **More resources like this**

ken@mathslinks.co.uk