see yenka

Histograms

Histograms are sophisticated bar graphs. Instead of using a frequency axis we use frequency density. This means the *area* of the bar reflects the frequency, not just its height.
This minimises the risk of distorting graphs to mislead people. It also enables us to use variable class widths which is often very useful.

see p375 to illustrate.

Page 376 odds only:A1,3,5

Histograms

Frequency = area of bar

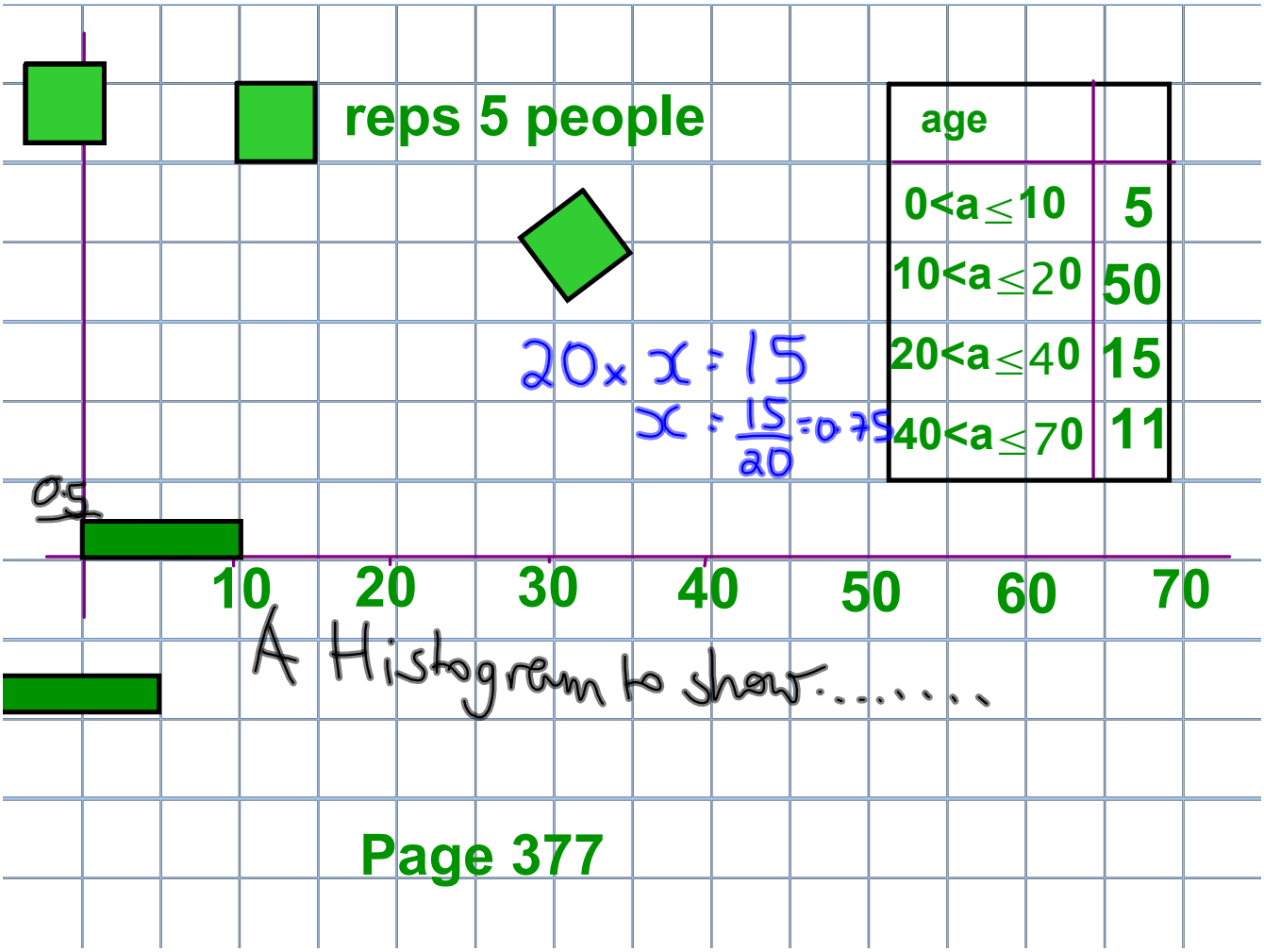
So,
length of class width x fd = area

Or... $\frac{\text{area}}{\text{length of class}} = fd$

Remember to use a key and/or frequency density!

p377 onwards

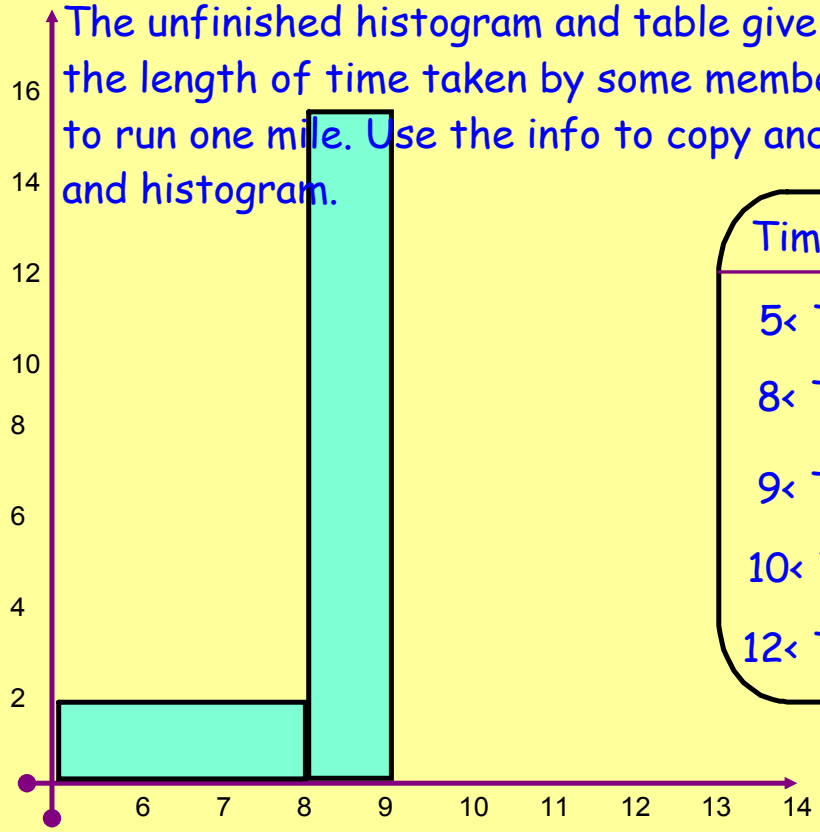
activity? census at school
distributions


reps 5 people
age
0<a≤10 5
10<a≤20 50
20<a≤40 15
40<a≤70 11
20 × x = 15
x = 15/20 = 0.75
0.5
10
20
30
40
50
60
70
A Histogram to show.....

Page 377

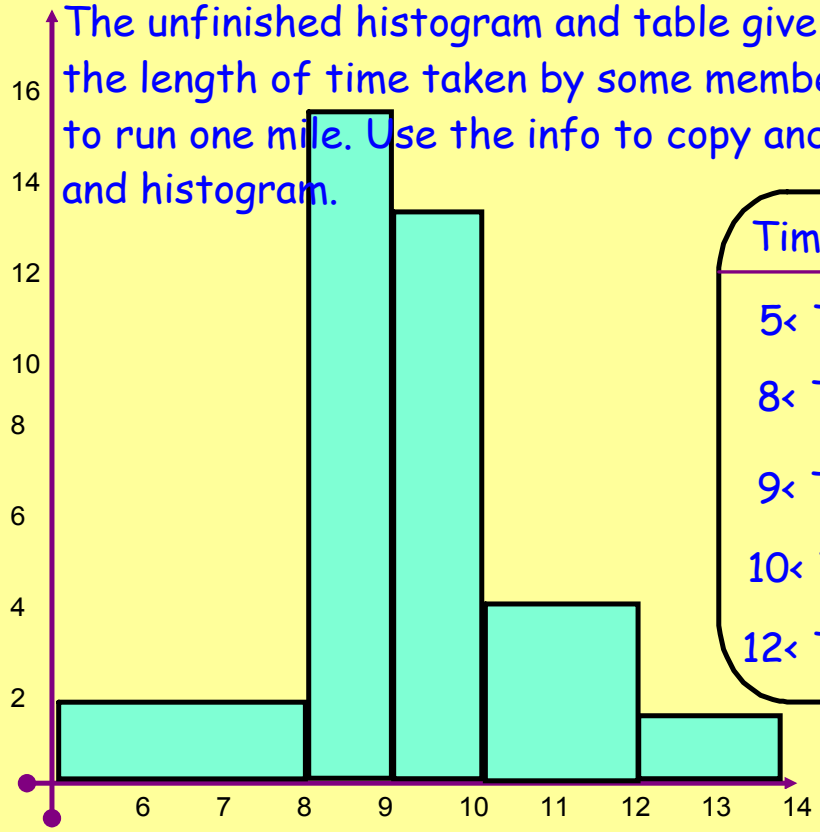
Draw a histogram of literacy rates by country.

The unfinished histogram and table give information about the length of time taken by some members of a health club to run one mile. Use the info to copy and complete the table and histogram.



Time	Freq
$5 < T \leq 8$	
$8 < T \leq 9$	
$9 < T \leq 10$	13
$10 < T \leq 12$	8
$12 < T \leq 14$	2

The unfinished histogram and table give information about the length of time taken by some members of a health club to run one mile. Use the info to copy and complete the table and histogram.



Time	Freq
$5 < T \leq 8$	**6**
$8 < T \leq 9$	**15**
$9 < T \leq 10$	13
$10 < T \leq 12$	8
$12 < T \leq 14$	2