

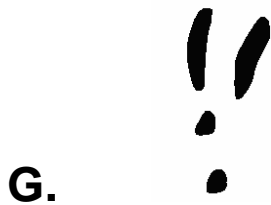
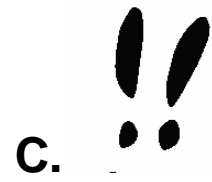
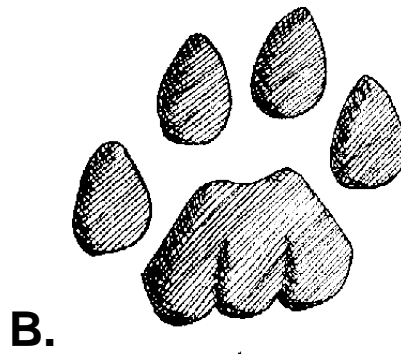


# Let's compare feet!

## TASK 1

Can you match the footprints to the animals?

1. Rabbit	2. Child	3. Black Bear	4. Raccoon	5. Lion
6. Dog	7. Squirrel	8. Cat	9. Deer	

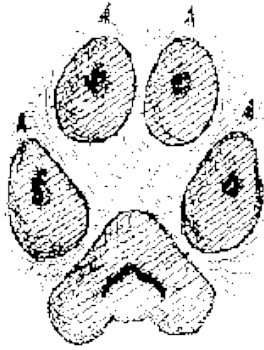


## Let's compare feet!

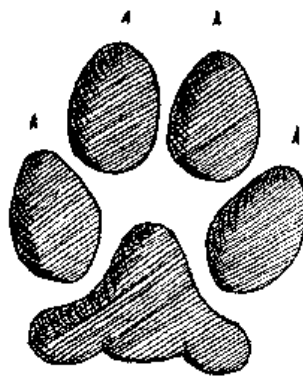
### TASK 2

How about these 3?

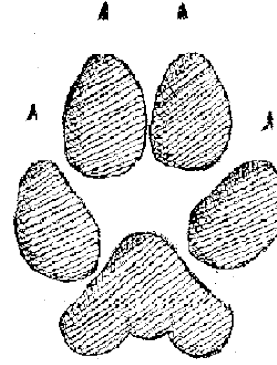
1. Wolf	2. Fox	3. Coyote
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**A.**



**B.**



**C.**

Explain why this task is a lot harder than Task 1.

How did you find out which print matches which animal?

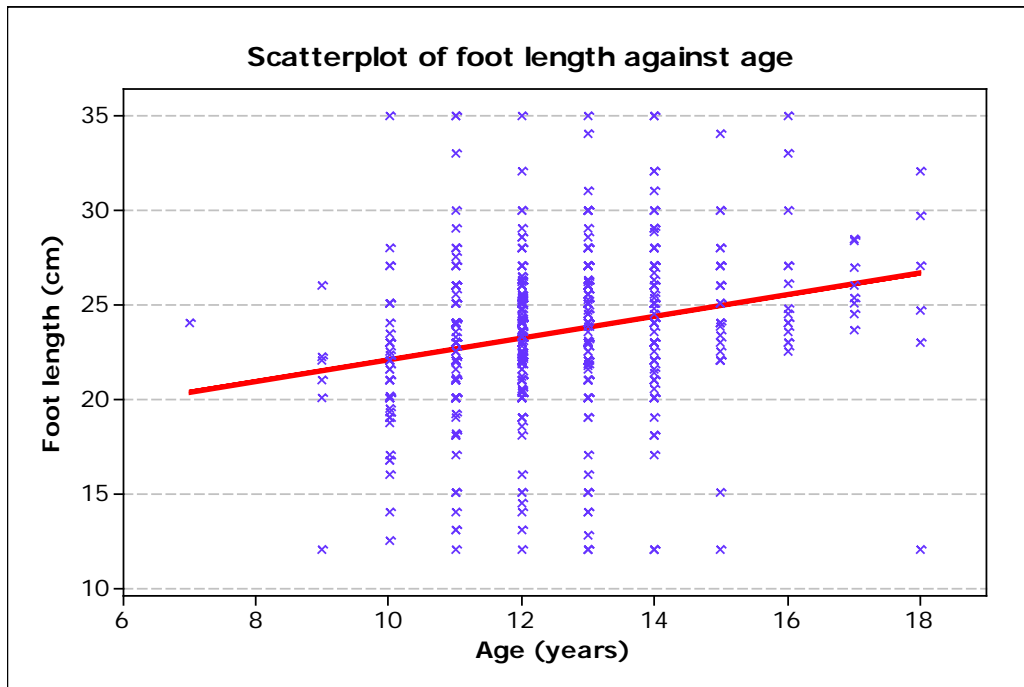
What kind of people may be able to do this?



# Let's compare feet!

## TASK 3

Here is a scatterplot of foot length against height using a sample of 500 pupils taken from CensusAtSchool 2012/13.



1. Does foot length increase with age? What conclusions can you draw from the scatterplot?
2. What conclusions can you draw from this graph?
3. What does the line on the graph mean?
4. The equation of this line is  $y = 0.6x + 16.2$ . Explain what this equation means.
5. Using the equation, work out the average foot length for
  - a) a 12 year old
  - b) an 18 year old
  - c) a 40 year old.
6. Which of your answers is wrong? Explain why.
7. Thinking about what a line of best fit is meant to show, do you agree with how the line has been drawn? Draw your own estimate on the graph.
8. Either, using data from your class, or the data given on the reverse, draw a similar scatter graph showing males and females in different colours.
9. Do males and females have any differences in foot length?



# Let's compare feet!

Data source - *CensusAtSchool*

Gender	Years old	Foot length (cm)	Gender	Years old	Foot length (cm)	Gender	Years old	Foot length (cm)
F	12	24.0	M	9	22.0	M	14	27.0
M	12	20.4	M	11	20.0	F	14	12.0
M	14	30.0	M	12	20.0	F	14	21.5
M	14	22.5	M	13	26.2	F	15	25.0
F	12	24.1	M	15	26.0	F	12	23.0
M	15	29.0	F	13	27.0	F	13	23.0
M	15	26.0	M	11	25.0	M	10	18.0
F	13	20.0	F	12	27.0	M	12	22.0
F	13	23.0	F	11	25.0	F	14	20.0
M	11	27.8	M	14	23.0	F	10	12.0
M	12	27.0	F	13	23.0	M	12	30.0
M	13	26.8	F	13	17.2	F	14	23.1
F	11	22.0	F	13	13.0	M	13	28.5
M	13	34.0	F	12	23.0	M	16	27.0
F	12	22.0	F	12	22.0	M	16	28.3
F	13	22.0	M	12	30.0	M	14	26.0
M	13	20.0	M	12	20.0	F	13	23.0
M	13	23.9	F	12	23.0	M	13	27.0
M	14	25.0	M	13	27.0	F	11	21.0
M	13	27.0	F	10	22.0	F	12	24.0
F	13	28.0	M	12	24.0	F	14	22.0
F	12	24.0	M	11	23.0	M	12	22.0
M	12	20.0	F	13	24.0	F	14	21.9
M	12	23.0	F	14	25.0	M	14	26.0
M	11	21.0	M	12	20.0	F	12	24.0
F	14	23.0	F	12	23.0	M	13	28.0
F	11	22.0	M	11	21.0	F	14	26.0
M	13	24.0	F	14	24.1	M	13	25.3

Task 2: 1B, 2A, 3C

Task 1: 1G, 2H, 3E, 4A, 5B, 6D, 7C, 8F, 9I