

Price's law

Next

Date: _____
Price's law

Sit down with a
pen and paper.



Price's Law.

[Back](#)[Next](#)

Price's Law

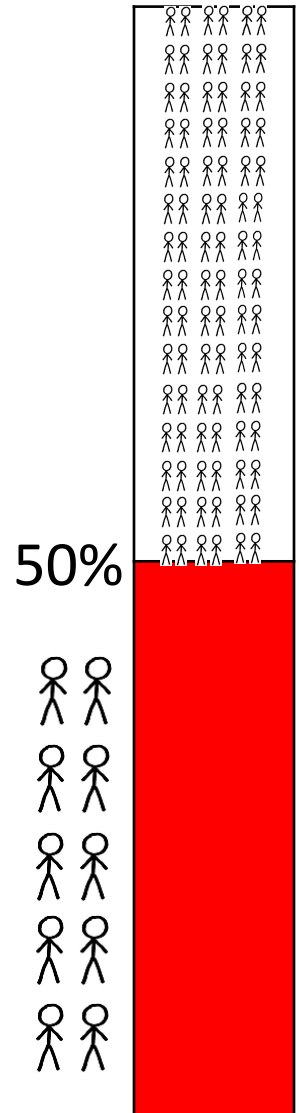
The square root of a group of people do 50% of the work.

Eg 100 people are working on a project.

$$\sqrt{100} = 10$$

10 people do 50% of the work.

Work



20 people do 50% of the work – Lets call this **Group A**.

380 people will do the other 50% - Lets call this **Group B**.

Person in Group B: *“A person in group A only does 2.4% more work than me.”*

Person in Group A: *“I do 1850% more work than a person in Group B.”*

The following questions will help you workout who is telling the truth!

They are difficult questions.

A calculator is allowed and you will be expected to round numbers.
1 or 2 decimal places is fine.

20 people do 50% of the work – Lets call this Group A.

380 people will do the other 50% - Lets call this Group B.

2 What fraction of all the work will one person from Group A do?

3 What fraction of the work will one person from Group B do?

4 What is the difference in workload between these two people?
Give your answer as a percentage of the whole workload.

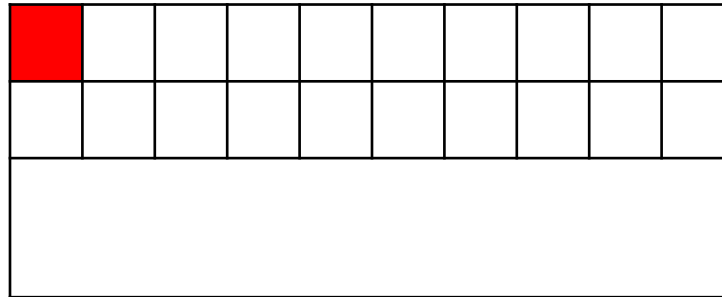
5 How much more work does a person from Group A do compared to a person from Group B?

Give your answer as a percentage.

Let the workload of a person from Group B be 100%.

1 20 people will do 50% and 380 people do the other 50%.

2 $\frac{1}{40}$



50% divided into 20

This 50% represents another 20 which makes the total out of 40

3 $\frac{1}{760}$

This works in the same way as above. The workload of 50% the work can be divided into 380 parts. The number of parts is doubled when you look at the whole workload.

4 $\frac{1}{40} - \frac{1}{760} = \frac{19}{760} - \frac{1}{760} = \frac{18}{760} \quad \frac{18}{760} \times 100 \approx 2.4\%$

5 $\frac{1}{760} \times 100 \approx 0.13\% \quad \frac{2.4}{0.13} \approx 18.5 \text{ times the workload}$

18.5 times the workload will be (x100) 1850% of a person in Group B

Both were telling the truth.

"**Lies, damned lies, and statistics**" is a phrase describing the persuasive power of numbers, particularly the use of **statistics** to bolster weak arguments.

Stating that a person in Group A only does 2.4% more work than you is not false, but it is misleading.

You should question every statistic you hear.

End of the lesson

[Back](#)

Well done for completing the lesson.



Reflections