

# **Maths with Graham**

Basic Maths made easy!

### **Extortionate Interest Rates**

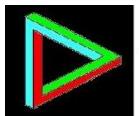
#### Watch the video

http://www.mathswithgraham.org.uk/potatoes/numeracy/extortionatepercentages.htm

then answer these questions.

The reporter said "There's nothing to stop companies charging whatever interest they want on loans. The best way to compare deals is Annual Percentage Rate or APR which varies greatly. Wonga.com have an average APR of 2689%. Another site QuickQuid have a typical APR of 2278%. The High Street banks are more likely to be under 30% but they will be more cautious about who they lend to."

What is the best way to compare loan offer deals?
How much do Wonga.com charge in interest?%
How much do Quick Quid charge in interest?%
According to the video what do the big banks usually charge lenders? Less than%
However Big Banks will only consider loans for large amounts of money. If you only want to borrow £100 you will not be able to borrow this from a bank.
Say you borrowed £1000 from a bank at 30% interest for one year. How much interest would you pay?
30% means £30 out of every £100. To calculate this multiply by 30 and divide by 100.
1000 x ÷ = £
So to repay the £1000 to the bank you will need to pay £1000 plus £300 interest.
What if you borrowed £3000 for a year at 23% interest?
$3000 \times 23 \div 100 = £$ so altogether we would have to repay £3000 + £690 = £
Lets try the same calculation for Wonga.com. If we borrow £1000 at 2689% for one year, how much will we repay?
The interest equals 1000 x 2689 ÷ 100 = £



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So altogether we will repay £26890 + £1000 = £\_\_\_\_\_

Perhaps this is a little unfair on Wonga as they deal in small loans, usually for short periods. Lets try another example. Suppose we borrowed £100 for one month. The interest would therefore be divided by 12.

Interest = £100 x 2689 ÷ 100 ÷ \_\_\_\_ = £\_\_\_

(round your answer to the nearest penny)

so to borrow a £100 for one month we would have to repay £100 + £224.08 = £\_\_\_\_\_

Lets try the same calculation for Quick Quid.

Interest =  $100 \text{ x} \pm 100 \div 12 = £$ 

Total repayments = 100 + 189.83 = £\_\_\_\_\_

The video explained that there is no legal limit to the amount of interest that can be charged. Door step loan sharks might charge even greater rates of interest and threaten violence if you can't pay. Say you borrowed £50 for one month from a loan shark who charges 4000%. How much will you have to repay?

Interest = £50 x  $4000 \div 100 \div 12 = £$ 

Total repayment = £50 + £166.67 = £\_\_\_\_\_

Credit Unions offer small loans to their customers at much more reasonable percentage rates. For instance you might be able to lend £100 for a year at 20% interest. How much would you have to repay?

Interest = 100 x \_\_\_\_\_÷ 100 = £\_\_\_\_

Total repayment = £100 + £ \_\_\_\_ = £ \_\_\_\_

You can find out more about Credit Unions here. http://www.moneysavingexpert.com/banking/credit-unions