

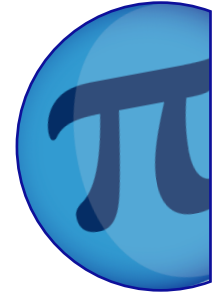


# Beating the Stock Market

NAME: .....

CLASS: .....

DATE: .....



## Basic

1) The price for a can of juice is 60p and for a bar of chocolate, 70p. The total cost of  $j$  cans of juice and  $c$  bars of chocolate is given by the formula:  $T = 60j + 70c$ . Use the formula to calculate the total cost if:

a)  $j = 2$  and  $c = 1$

b)  $j = 3$  and  $c = 0$

c)  $j = 4$  and  $c = 3$

d)  $j = 2$  and  $c = 10$

e)  $j = 3$  and  $c = 4$

f)  $j = 0$  and  $c = 6$

2) Seven children are given a sum of money. They divide it equally so that they each receive £7.14. There is 2p left over.

a) What was the sum of money they were given?

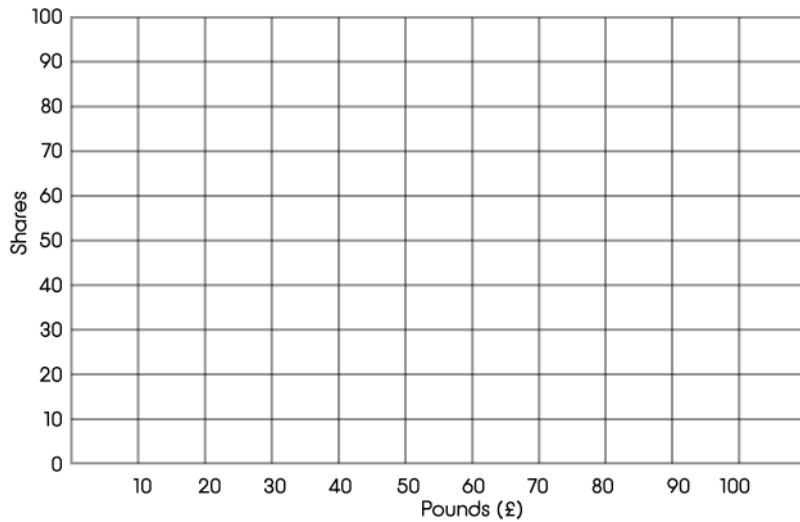
b) If £10 of the money had been given to charity, what amount of money would each of the children have received?



# Beating the Stock Market

## Basic

3) Using the set of axes below, draw a graph for calculating the total price of certain shares on the stock market. If £50 purchases 60 shares, plot this on the graph and draw a straight line to use for conversions.



a) Using the graph, how many shares can be purchased for:

(i) £30

(ii) £15

(iii) £80

b) Using the graph, what would be the cost of:

(i) 30 shares

(ii) 80 shares

(iii) 100 shares



# Beating the Stock Market

NAME: .....

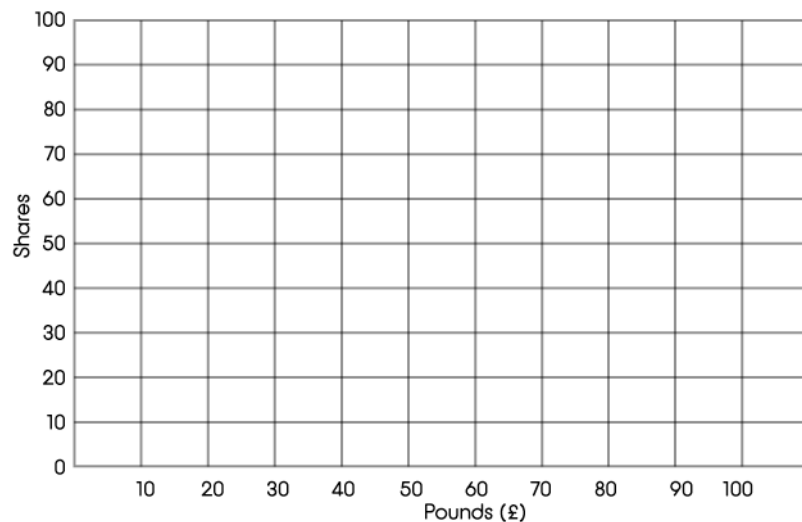
CLASS: .....

DATE: .....



## Core

1) Using the set of axes below, draw a graph for calculating the total price of certain shares on the stock market. If £50 purchases 60 shares, plot this on the graph and draw a straight line to use for conversions.



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# Beating the Stock Market

## Core

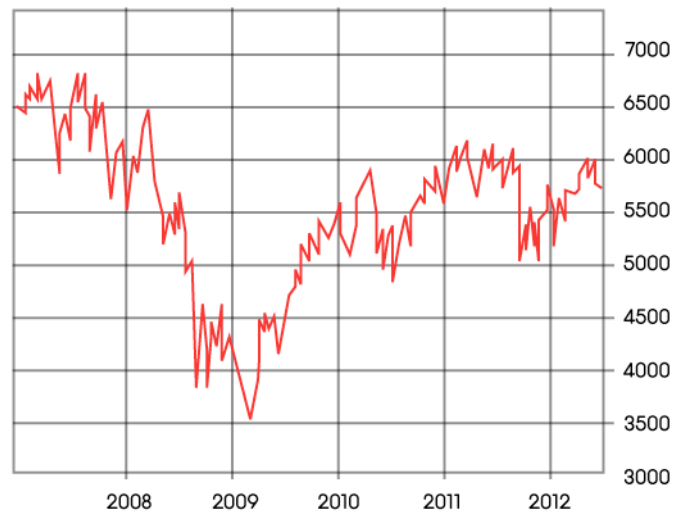
2) The cost of purchasing shares from a stockbroker is £3 per share plus a £50 arrangement fee.

a) Write down an expression for the cost,  $c$ , in pounds, for purchasing  $n$  shares from the stockbroker.

b) Calculate the cost of purchasing 200 shares.

c) How many shares can be purchased for £1000?

3) The values of stocks in a market increase and decrease through time. The graph below shows the fluctuation in stock prices from 2007–2012.



a) Which year recorded the lowest stock value?

b) Which year recorded the highest stock value?

c) Mid 2009–2010 saw a steady increase in stock value. Describe what occurred with stock value from early 2010–mid 2011.

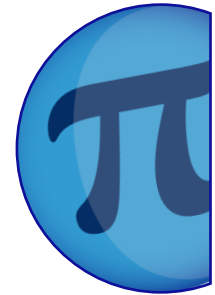


# Beating the Stock Market

NAME: .....

CLASS: .....

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## Advanced

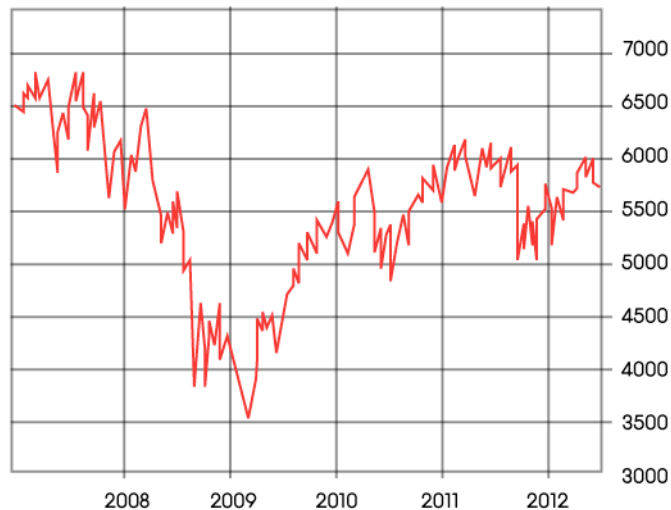
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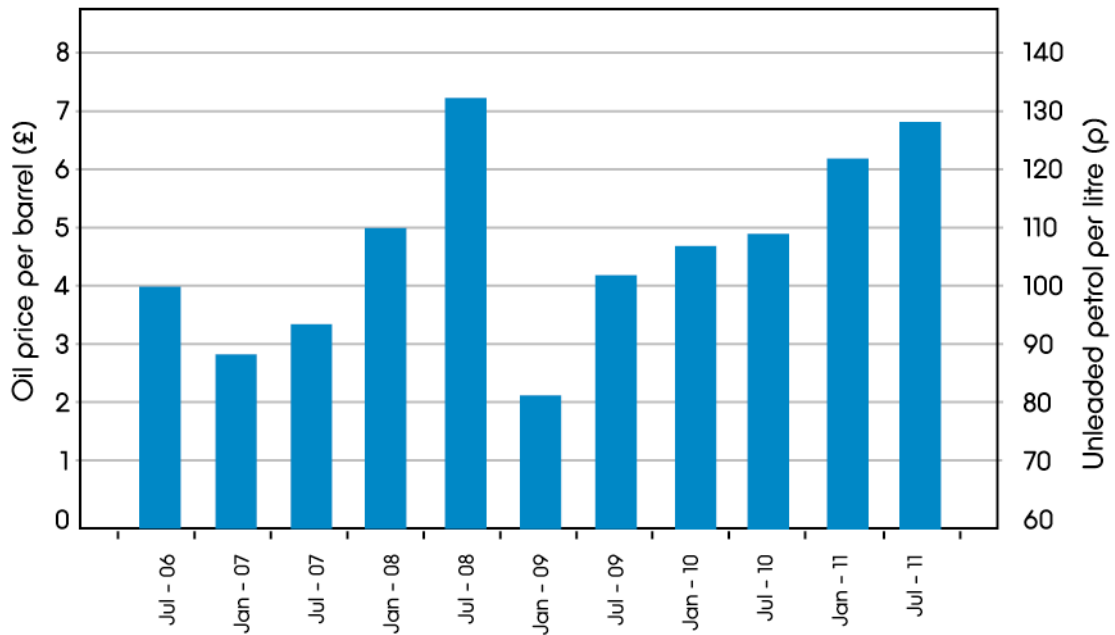
c) Mid 2009–2010 saw a steady increase in stock value. Describe what occurred with stock value from early 2010–mid 2011.



# Beating the Stock Market

## Advanced

3) Below are given the figures for oil prices (in £s) versus the total cost of unleaded petrol per litre.



- When was the cost of oil at its highest?
- When was the price of petrol at its highest?
- Using the above graph predict the price of oil in July 2012.
- What is the correlation between the price of oil and the price of petrol?

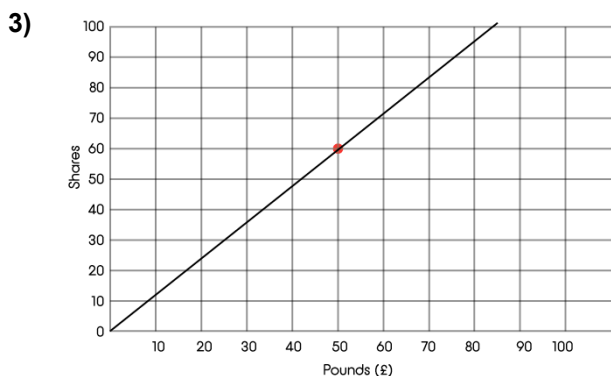


# Beating the Stock Market

## ANSWERS

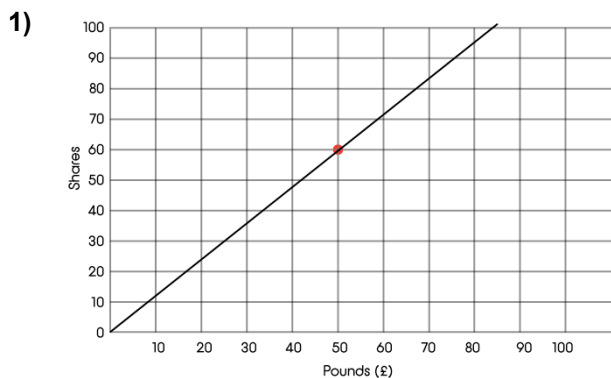
### Basic

- 1) a) £1.90      b) £1.80      c) £4.50      d) £8.20      e) £ 4.60      f) £4.20  
2) a) £50      b) £5.71



- a) (i) 36; (ii) 18; (iii) 96      b) (i) £25; (ii) £67; (iii) £83

### Core



- a) (i) 36; (ii) 18; (iii) 96      b) (i) £25; (ii) £67; (iii) £83  
2) a)  $c = 3n + 50$       b) £650      c) 316  
3) a) 2009      b) 2008      c) Steady increase then dramatic drop

### Advanced

- 1) a)  $c = 3n + 50$       b) £650      c) 316  
2) a) 2009      b) 2008      c) Steady increase then dramatic drop  
3) a) July 2008      b) July 2011      c) Approximately £80  
d) Positive: as price of oil increases so does the price of petrol.