Half-life

These figures show how the count from a radioactive substance changes over time.

Time (min)	Count rate
0	1600
5	1100
10	800
15	550
20	400
25	350
30	200
35	130

1 a) Use the table to plot the points on the axis, show how the count rate varies with time.
Label the axis and add a title.
Join the points with a smooth curve.

b) What pattern can you see on the graph?

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c) One of the readings is not quite right.
Draw a circle around that point on your graph.

2 Use your graph to answer these questions:

a) When was the count rate 1000?

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b) How long did it take for the count rate to fall to half this amount (500)?

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c) What is the half life of the material?

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d) Sketch another line on your graph to show the curve you may see for another material with a shorter half-life.

Name: