Key Stage 3
Social Media Plot

Student worksheet

Information and social media

Scientists from the University of Oxford are studying how information and misinformation can spread across social media platforms. Mathematical models can be used to help predict how information might spread.
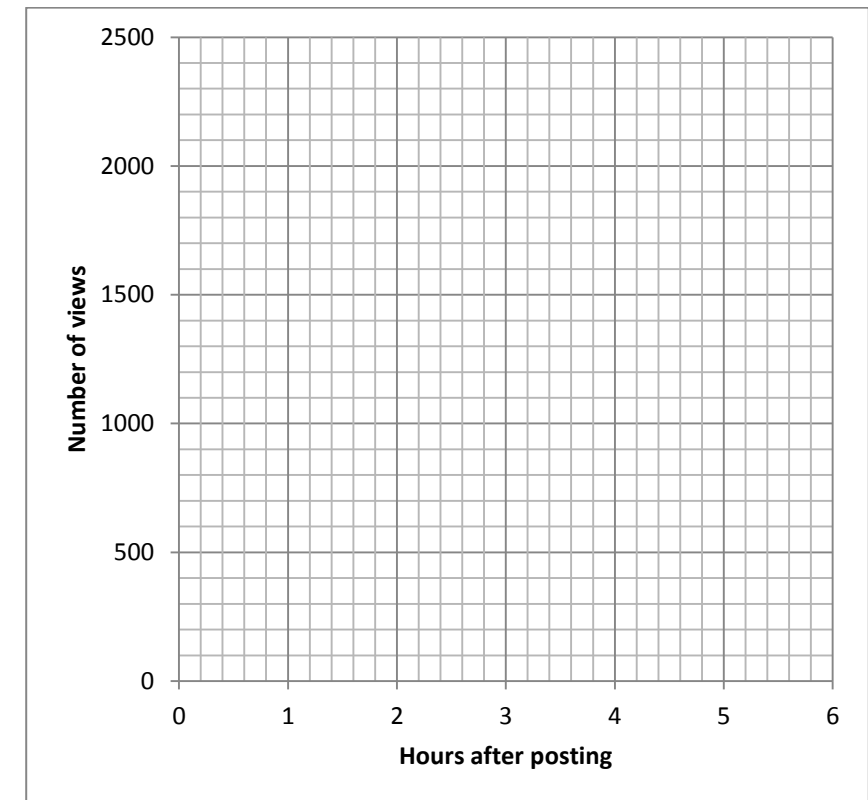
Graphs are a powerful mathematical tool that can be used by scientists to help understand and predict information.

Your task

Plot the following graphs and use them to answer the questions

1) The data below shows the number of times a Facebook post was viewed during the day.

Hours after first post	1	2	3	4	5
Post views on Facebook	420	840	1260	1680	2110

a) Plot the data and draw a line of best fit through the points.

b) If the original post was made at 10am. Use you graph to estimate the time when the post had

      i)   200 views

      ii)   2000 views

2) The data below shows how often a photo was viewed in the first hour after posting it on Instagram.

Minutes after posting photo	10	20	30	40	50	60
Instagram views	2	8	18	32	50	72

a) Describe the shape of the graph.
b) Use your graph to estimate when the number of views reached 40

Number of views vs Minutes after post
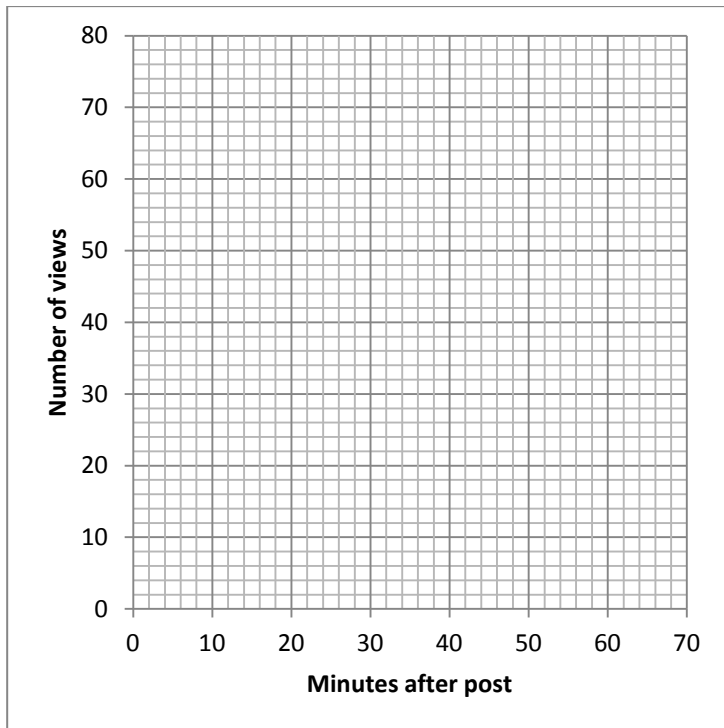
3) The graph below shows the total number of retweets for a post for 18 days.

Number of retweets vs Days after original tweet
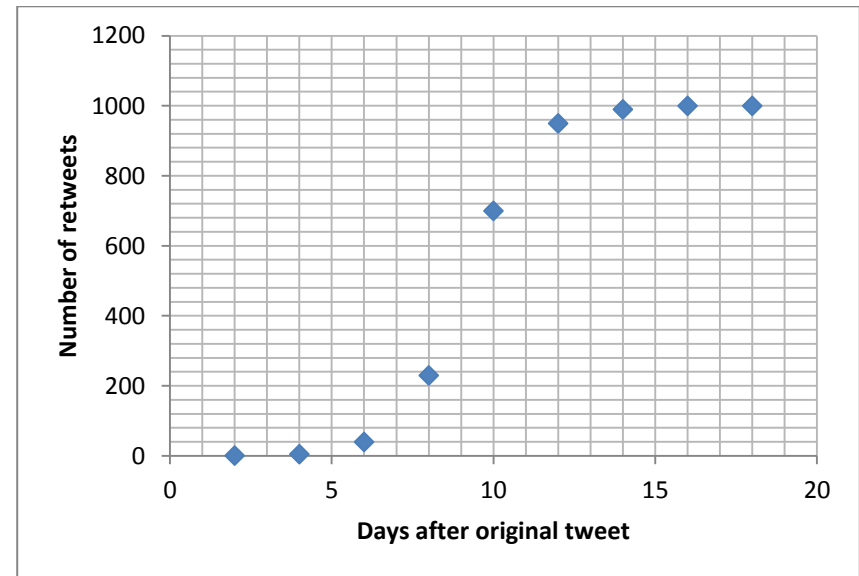
a) Draw a curved line of best fit through the points in the graph.
b) Use the graph to estimate the number of retweets on day 7.
c) Describe why you think the graph might be this shape?

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