



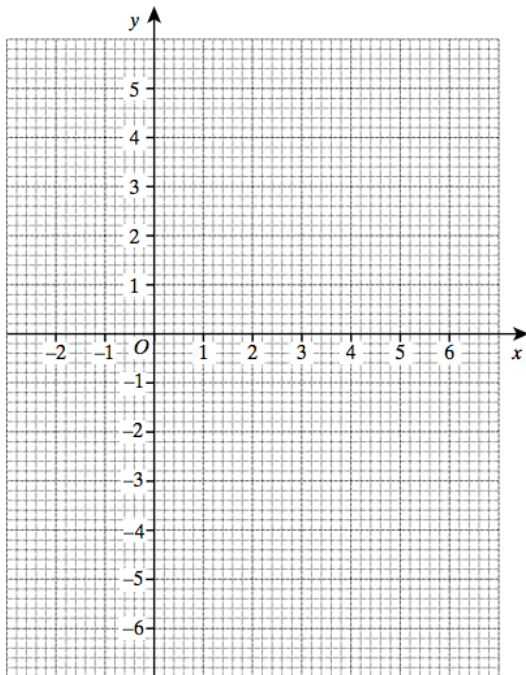
Solve the simultaneous equations

$$4x + 2y = 14$$

$$x + 2y = 8$$

There are 90 cards in a pack.  
Each card is red or yellow.  
The ratio of the number of red cards to yellow cards is 1:2  
10 more yellow cards are added to the pack.

Find the ratio of red cards to yellow cards that are now in the pack.  
Give your answer in its simplest form.



On the grid, draw the graph of  
 $y = x^2 - 4x - 2$

Calculate the volume of the square based pyramid.

