

New A Level  
Economics

Theory of  
the Firm

**The Best  
Baked  
Potatoes  
in Town!**



*The Perfectly*

**Competitive  
Potato**

## Teacher Instructions

Ant sells baked potatoes by the sack-load from a market stall in his nearby town centre of Celebrityville.

He has some fixed costs – the cost of renting his pitch and employing his friend Declan to help out on the stall. His variable cost is mainly the cost of the potatoes that he purchases from a nearby wholesaler and the sacks that in which he sells the potatoes.

Ant is not the only potato seller in the town centre. There is another market stall selling potatoes and the town has two grocery shops that sell potatoes in their stores by the sack-load.

As such, Ant has to keep his price the same as his main competitors. If he tried selling them at a higher rate he would lose all his customers as they are very, very well informed. He is a 'price taker'.

Using the data in the table overleaf, draw the marginal cost, marginal revenue, average total cost and average revenue lines into the chart below.

### Some terminology

**The table shows how many sacks he could sell every half hour.**

**Average cost = total cost divided by no. of sacks**

**Marginal cost = the change in total cost by creating one more sack.**

**Price = the price set per sack of baking potatoes by the market in the competitive market**

**Total Revenue = price x number of sacks**

**Average Revenue = total revenue divided by the no. of sacks**

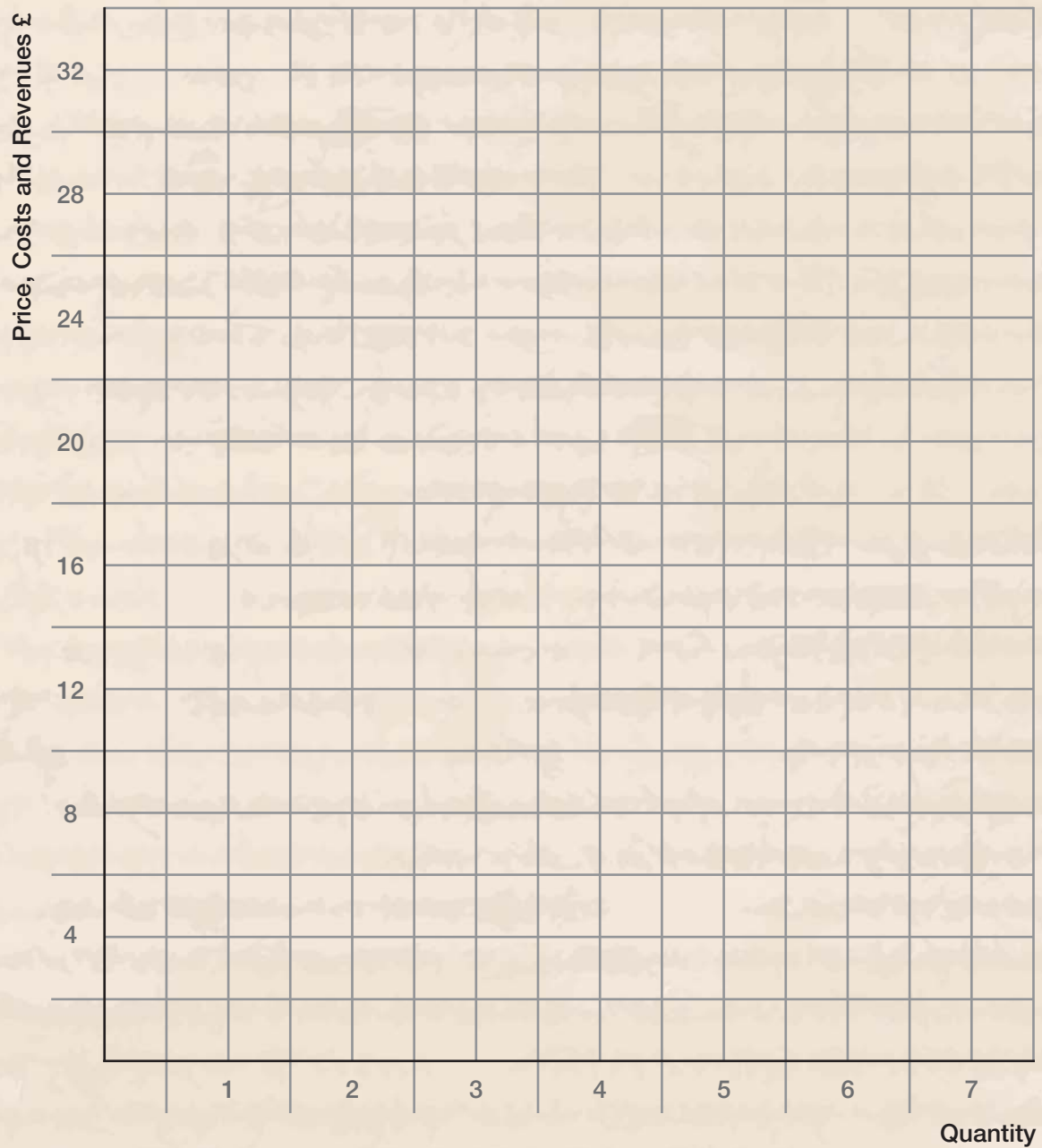
**Marginal revenue = the change in total revenue by selling one further sack of potatoes**



# TASK 1

Complete the table and chart below (costs and revenues stated in £):

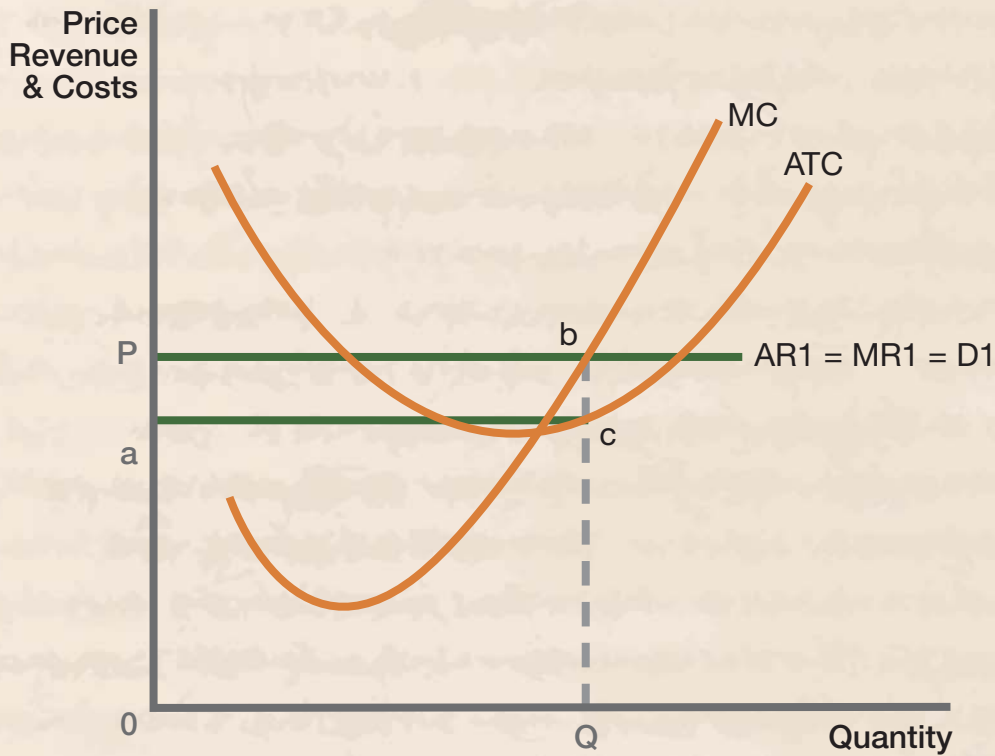
Sacks	1	2	3	4	5	6	7
Total Cost	15	28	38	50	65	84	112
Average Total Cost							
Marginal Cost	15						
Price	14	14	14	14	14	14	14
Total Revenue							
Average Revenue							
Marginal Revenue	14						



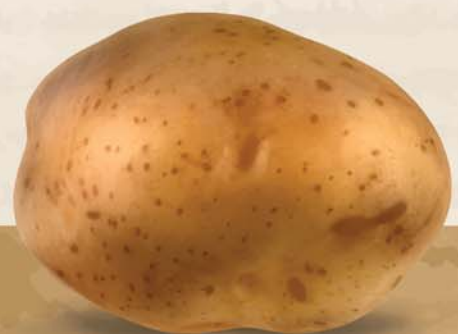
The chart that we've constructed helps us to work out the profit of Ant's potato stall. If we assume that he is profit maximising he will create the number of sacks where marginal cost = marginal revenue.

You can also see that because Ant is a price taker, his marginal and average revenue remain the same no matter how many potatoes he sells. His AR and MR are equal to his price.

Your chart should have looked like this:

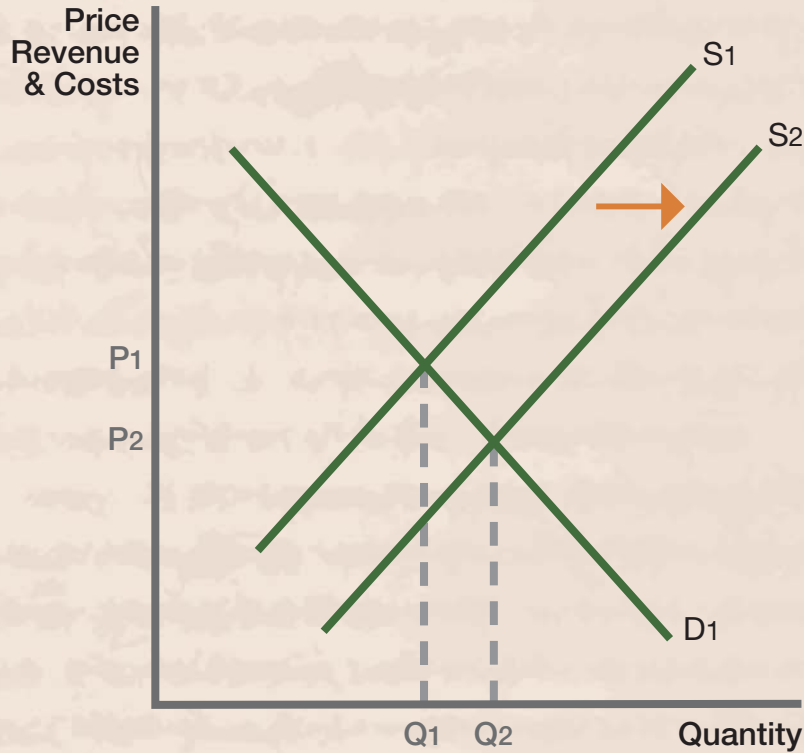


The area aPbc is the amount of abnormal profit that Ant is making. Work out how much abnormal profit is being made and enter your figure here:



## TASK 2

The market is competitive and free to enter. It takes very little set-up costs to start a potato stall. However, there are more sellers in the market (but the same number of total potential customers), shifting the supply curve to the right. Each firm will have to reduce their price to attract customers.

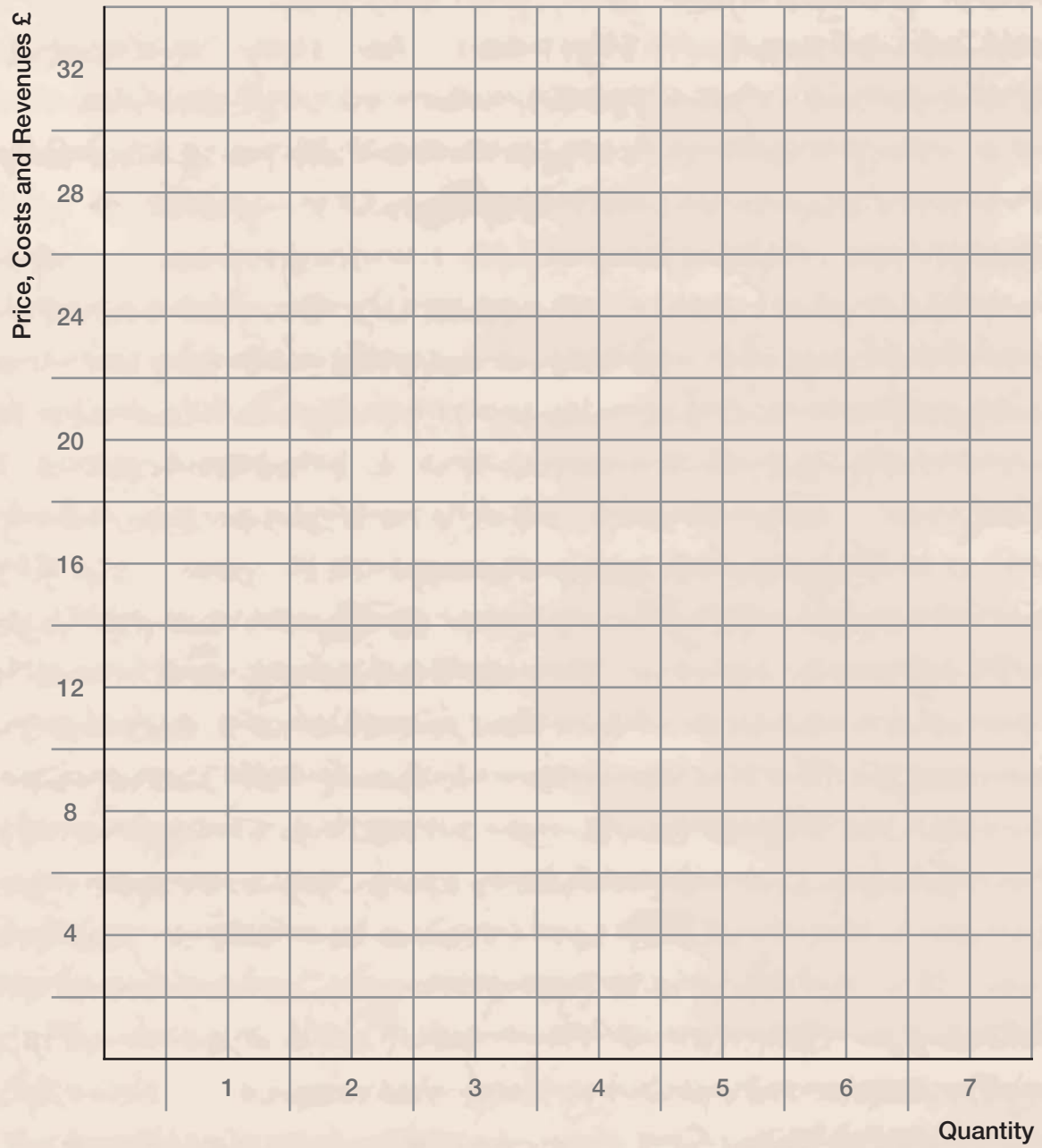


The market supply curve will shift:

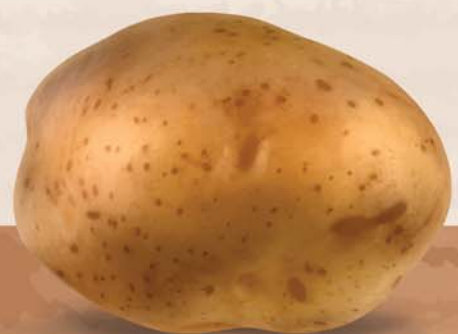
Complete the table again. The average and marginal costs have not altered. Calculate the level of profit that Ant's firm will make now.

Complete the table and chart below (costs and revenues stated in £)

Sacks	1	2	3	4	5	6	7
Total Cost	15	28	38	50	65	84	112
Average Total Cost							
Marginal Cost	15						
Price	10	10	10	10	10	10	10
Total Revenue							
Average Revenue							
Marginal Revenue	11						

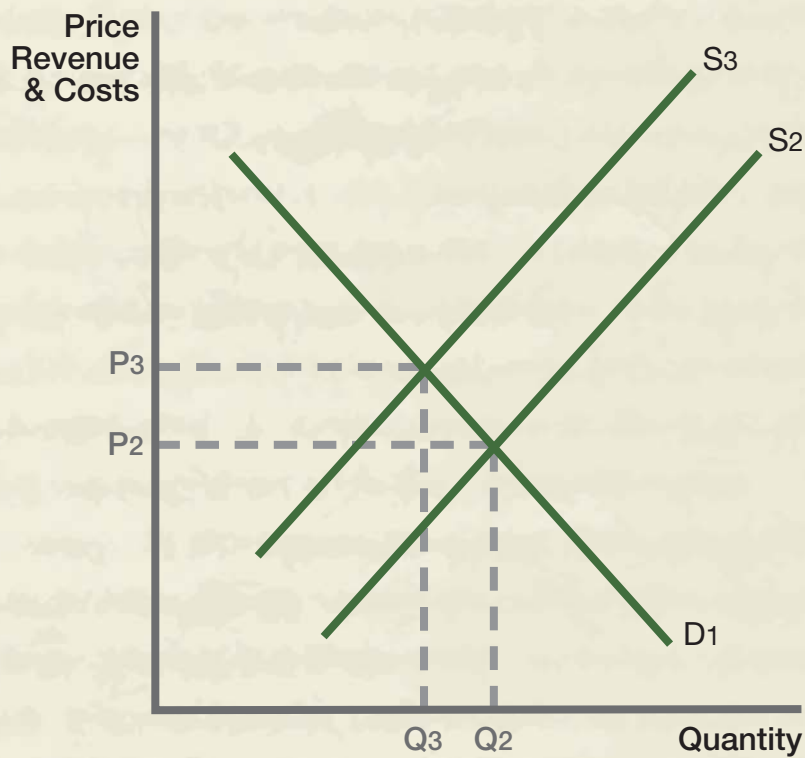


What will Ant's loss be now?

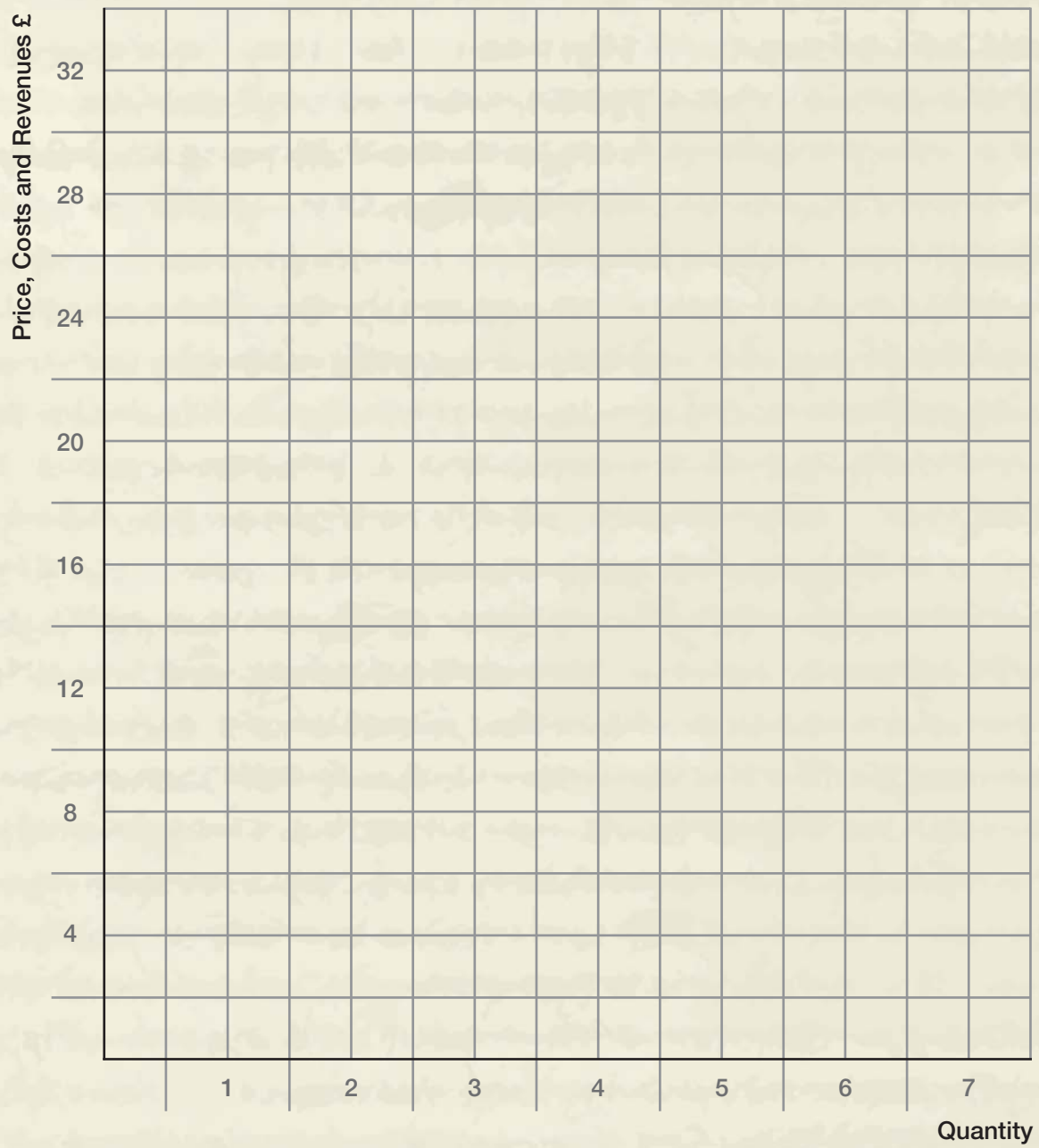


## TASK 3

If the firms that are selling in this market are all making loss some firms will choose to leave the market. Again this will shift the market supply curve but this time to the left.



Assuming that costs remain the same and that the new price for Ant's potatoes is £12. Redraw the diagram below and calculate the amount of profit being made



Ant's profits:

In the long-run, firms operating in a competitive market will make 'normal' profits (i.e. break-even).

