



Revisionstation

BE

Break-Even



Tricky Topics  
REVISIONSTATION

Answers



# Answers

## Answers to contribution calculations on page 2:

	<b>Selling price per unit</b>	<b>Variable cost per unit</b>	<b>Contribution per unit (£)</b>
<b>A</b>	<b>£4.50</b>	<b>79p</b>	<b>£3.71</b>
<b>B</b>	<b>£36.00</b>	<b>£4.99</b>	<b>£31.01</b>
<b>C</b>	<b>£199.00</b>	<b>£64.99</b>	<b>£134.01</b>

## Answers to break-even calculations on page 3:

	<b>Contribution</b>	<b>Fixed costs</b>	<b>Break-even (in units)</b>
<b>A</b>	<b>£18.50</b>	<b>£1,000</b>	<b>55 units (Round up)</b>
<b>B</b>	<b>£99</b>	<b>£2,500</b>	<b>26 units (Round up)</b>
<b>C</b>	<b>£3,000</b>	<b>£250,000</b>	<b>84 units (round up)</b>



## **Answers to break-even practice calculation questions**

### **Answer to break-even practice question 1 on page 5**

- **First calculate contribution SP-VC**
- **£20 - £3**
- **Contribution is £17**
- **Now use the break-even formula FC/C**
- **£1000/£17**
- **Break even (in units is) 58.82**
- **Always round up in break-even**
- **You need to sell 59 H Shirts to break-even**



### **Answer to break-even practice question 2 on page 5**

- **First calculate contribution SP-VC**
- **£20 - £7**
- **Contribution is £13**
- **Now use the break-even formula FC/C**
- **£1000/£13**
- **Break even (in units is) 76.72**
- **Always round up in break-even**
- **You need to sell 77 H Shirts to break-even**

### **Answer to break-even practice question 3 on page 5**

- **First calculate contribution SP-VC**
- **£20 - £7**
- **Contribution is £13**
- **Now use the break-even formula FC/C**
- **£1250 / £13**
- **Break even (in units is) 96.15**
- **Always round up in break-even**
- **You need to sell 97 H Shirts to break-even**

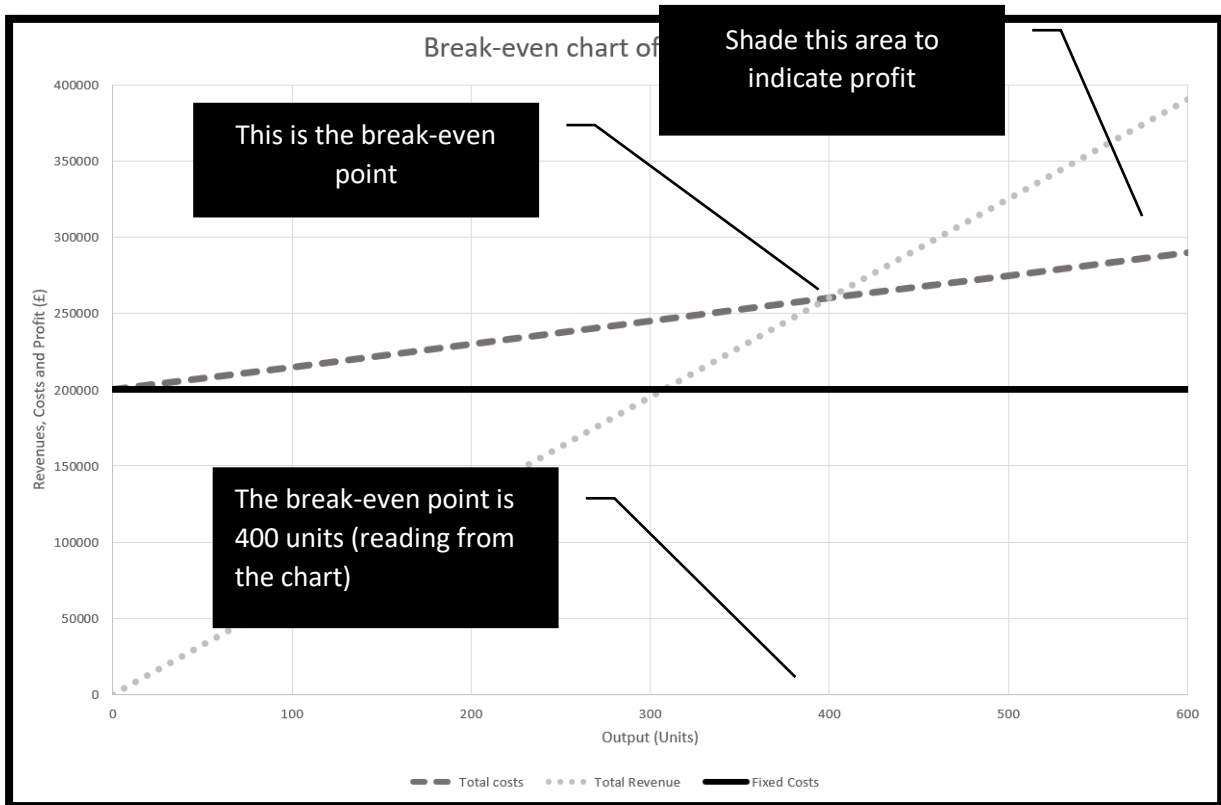
## Answers to Total Costs grid on page 7

	Fixed costs	Variable costs	Total costs
0 units	£1,000	£0	£1,000
500 units	£1,000	£2,500	£3,500
1000 units	£1,000	£5,000	£6,000

## Answer to the break-even graph question on page 11

The area to the left of the break-even point would indicate Loss

## Answer to break-even chart practice question on page 12





### Answer to margin of safety practice question 1 on page 15

- **Use the Margin of Safety (MoS) formula: Actual units – Break-even units**
- **46,000 – 25,000 = 21,000**
- **If the cost of raw materials increases**
- **46,000 – 29,000 = 17,000**
- **The difference**
- **21,000-17,000 = 4,000**

### Answer to margin of safety practice question 2 on page 15

**A) To calculate the Total Revenue (TR) use the formula Q x P  
60 £18 = £1080**

**B) To calculate break-even first calculate contribution SP-VC**

- **£18 - £1 = £17**
- **Contribution is £17**
- **Now use the break-even formula FC/C**
- **£90 / £17**
- **Break even (in units is) 5.29**
- **Always round up in break-even**
- **Cleaner homes will need to wash the windows of 6 houses to break-even**

**C) To calculate the Margin of Safety (MoS) use the formula:**

- **Actual units – Break-even units**
- **60 – 6 = 54**
- **Margin of safety is washing the windows of 54 houses**

### Answer to extra practice question 1 on page 16

- **To calculate break-even first calculate contribution SP-VC**
- **£1000 - £800 = £200**
- **Contribution is £200**
- **Now use the break-even formula FC/C**
- **£12,000 / £200**
- **Break even (in units is) 60**
- **Vision One needs to sell 60 TVs per year to break even**

### Answer to extra practice question 2 on page 16

#### **A) To calculate break-even first calculate contribution SP-VC**

- **£12.50 - £2.25 = £10.25**
- **Contribution is £10.25**
- **Now use the break-even formula FC/C**
- **£2000 / £10.25**
- **Break even (in units is) 195.12**
- **Always round up with break-even**
- **Beak-even is 196 items of jewellery a year**

#### **B) To calculate the Margin of Safety (MoS) use the formula:**

- **Actual units – Break-even units**
- **350 – 196 = 154**
- **Margin of safety is 154 items of jewellery**