

## Break Even – Word Problems

Q1. A company manufactures and sells a single product for which the variable cost is \$28 per unit. The contribution to sales is 30%, and the company has fixed costs of \$21,600 per year. How many units does the company need to sell in order to achieve a target profit of \$60,000?

Q2. A company manufactures and sells a single product for which the variable cost is \$12 and contribution to sales ratio is 40%. The fixed costs are \$80,000 per year, they are budgeting on selling 12,000 units per year. What is the margin of safety?

Q3. A company has budgeted to sell 100,000 units of its product at a price of \$25 per unit. The contribution to sales ratio is 25%, and the fixed costs are \$375,000. What is the breakeven sales revenue, and what is the margin of safety?

Q.4

E Co makes two products - X and Y - budgeted details of which are as follows:

	X	Y
	\$	\$
Selling price	24.00	19.20
Cost per unit:		
Direct materials	8.40	9.60
Direct labour	3.60	2.40
Variable overhead	1.44	0.96
Fixed overhead	2.88	2.40
Profit per unit	7.68	3.84

Budgeted production and sales for the year ended 31 December 2015 are:

Product X: 10,000 units.      Product Y: 12,500 units.

The fixed overheads included in X relate to an apportionment of general overhead costs only. However, Y also includes specific fixed overheads totalling \$6,000.

**If only product X were to be made, how many units (to the nearest unit) would need to be sold in order to achieve a profit of \$144,000?**