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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27. | The break-even in units sold will decrease if there is an increase in:      |  |  | | --- | --- | | A. | unit sales volume. |  |  |  | | --- | --- | | B. | total fixed expenses. |  |  |  | | --- | --- | | C. | unit variable expenses. |  |  |  | | --- | --- | | **D.** | selling price. | |

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| 31. | | Brees Inc., a company that produces and sells a single product, has provided its contribution format income statement for April.      If the company sells 5,800 units, its total contribution margin should be closest to:      |  |  | | --- | --- | | A. | $55,800 |  |  |  | | --- | --- | | **B.** | $52,200 |  |  |  | | --- | --- | | C. | $6,642 |  |  |  | | --- | --- | | D. | $47,000 |   Selling price per unit = Sales ÷ Quantity sold = $136,400 ÷ 6,200 units = $22 per unit  Variable expenses per unit = Variable expenses ÷ Quantity sold Variable expenses per unit = $80,600 ÷ 6,200 units = $13 per unit  Unit CM = Selling price per unit - Variable expenses per unit = $22 per unit - $13 per unit = $9 per unit  Total CM = Unit CM × Quantity sold = $9 per unit × 5,800 units = $52,200 | | |
| 33. The records of the Dodge Corporation show the following results for the most recent year:      Given these data, the unit contribution margin was:      |  |  | | --- | --- | | A. | $16 |  |  |  | | --- | --- | | B. | $4 |  |  |  | | --- | --- | | C. | $2 |  |  |  | | --- | --- | | **D.** | $6 |   Selling price per unit = $256,000 ÷ 16,000 units = $16 per unit Variable expense per unit = $160,000 ÷ 16,000 units = $10 per unit Unit CM = Selling price per unit - Variable expense per unit Unit CM = $16 per unit - $10 per unit = $6 per unit | | |
| 35. | Spartan Systems reported total sales of $300,000, at a price of $20 and per unit variable expenses of $12, for the sales of their single product.      What is the amount of contribution margin if sales volume increases by 30%?      |  |  | | --- | --- | | A. | $19,500 |  |  |  | | --- | --- | | B. | $15,000 |  |  |  | | --- | --- | | **C.** | $156,000 |  |  |  | | --- | --- | | D. | $120,000 |   CM ratio = Contribution margin ÷ Sales = $120,000 ÷ $300,000 = 0.40 Contribution margin = CM ratio × Sales Contribution margin = 0.40 × (1.3 × $300,000) = $156,000 | | |
| 36. | Lepage Corporation has provided its contribution format income statement for January. The company produces and sells a single product.      If the company sells 4,700 units, its total contribution margin should be closest to:      |  |  | | --- | --- | | A. | $83,600 |  |  |  | | --- | --- | | B. | $18,373 |  |  |  | | --- | --- | | **C.** | $89,300 |  |  |  | | --- | --- | | D. | $98,000 |   Selling price per unit = Sales ÷ Quantity sold = $211,200 ÷ 4,400 units = $48 per unit  Variable expenses per unit = Variable expenses ÷ Quantity sold = $127,600 ÷ 4,400 units = $29 per unit  Unit CM = Selling price per unit - Variable expenses per unit = $48 per unit - $29 per unit = $19 per unit  Total CM = Unit CM × Quantity sold = $19 per unit × 4,700 units = $89,300 | | |
| 37. | At a break-even point of 800 units sold, White Corporation's variable expenses are $8,000 and its fixed expenses are $4,000. What will the Corporation's net operating income be at a volume of 801 units?      |  |  | | --- | --- | | A. | $15 |  |  |  | | --- | --- | | B. | $10 |  |  |  | | --- | --- | | **C.** | $5 |  |  |  | | --- | --- | | D. | $20 |   Profit = (Unit CM × Q) - Fixed expenses $0 = (Unit CM × 800 units) - $4,000 Unit CM = $4,000 ÷ 800 units = $5 per unit Profit = ($5 per unit × 801 units) - $4,000 = $5 | | |
| 38. | Maack Corporation's contribution margin ratio is 16% and its fixed monthly expenses are $44,000. If the company's sales for a month are $299,000, what is the best estimate of the company's net operating income? Assume that the fixed monthly expenses do not change.      |  |  | | --- | --- | | A. | $207,160 |  |  |  | | --- | --- | | **B.** | $3,840 |  |  |  | | --- | --- | | C. | $255,000 |  |  |  | | --- | --- | | D. | $47,840 |   Profit = (CM ratio × Sales) - Fixed expenses = (0.16 × $299,000) - $44,000 = $47,840 - $44,000 = $3,840 | | |
| 40. | Bolding Inc.'s contribution margin ratio is 61% and its fixed monthly expenses are $42,000. Assuming that the fixed monthly expenses do not change, what is the best estimate of the company's net operating income in a month when sales are $126,000?      |  |  | | --- | --- | | A. | $76,860 |  |  |  | | --- | --- | | B. | $7,140 |  |  |  | | --- | --- | | **C.** | $34,860 |  |  |  | | --- | --- | | D. | $84,000 |   Profit = (CM ratio × Sales) - Fixed expenses = (0.61 × $126,000) - $42,000 = $76,860 - $42,000 = $34,860 | | |
| 47. | Data concerning Wythe Corporation's single product appear below:      Fixed expenses are $106,000 per month. The company is currently selling 2,000 units per month. The marketing manager would like to cut the selling price by $15 and increase the advertising budget by $5,000 per month. The marketing manager predicts that these two changes would increase monthly sales by 800 units. What should be the overall effect on the company's monthly net operating income of this change?      |  |  | | --- | --- | | A. | increase of $31,000 |  |  |  | | --- | --- | | B. | decrease of $31,000 |  |  |  | | --- | --- | | C. | increase of $103,000 |  |  |  | | --- | --- | | **D.** | increase of $1,000 |   Net operating income would increase by $1,000. | | |
| 48. | Joly Corporation produces and sells a single product. Data concerning that product appear below:      Fixed expenses are $511,000 per month. The company is currently selling 5,000 units per month. The marketing manager would like to cut the selling price by $16 and increase the advertising budget by $33,000 per month. The marketing manager predicts that these two changes would increase monthly sales by 800 units. What should be the overall effect on the company's monthly net operating income of this change?      |  |  | | --- | --- | | A. | decrease of $59,800 |  |  |  | | --- | --- | | B. | increase of $59,800 |  |  |  | | --- | --- | | C. | increase of $130,200 |  |  |  | | --- | --- | | **D.** | decrease of $20,200 |   Net operating income decreases by $20,200. | | |
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| 51. | The Clyde Corporation's variable expenses are 35% of sales. Clyde Corporation is contemplating an advertising campaign that will cost $25,000. If sales increase by $75,000, the company's net operating income will increase by:      |  |  | | --- | --- | | A. | $26,250 |  |  |  | | --- | --- | | **B.** | $23,750 |  |  |  | | --- | --- | | C. | $1,250 |  |  |  | | --- | --- | | D. | $65,000 |   CM ratio = 1 - Variable expense ratio = 1 - 0.35 = 0.65 Increase in net operating income = (CM ratio × Increase in sales) - Increase in fixed expenses = (0.65 × $75,000) - $25,000 = $48,750 - $25,000 = $23,750 | | |
| 56. | Garcia Veterinary Clinic expects the following operating results next year:      What is Garcia's break-even point next year in sales dollars?      |  |  | | --- | --- | | A. | $240,000 |  |  |  | | --- | --- | | **B.** | $375,000 |  |  |  | | --- | --- | | C. | $400,000 |  |  |  | | --- | --- | | D. | $420,000 |   Contribution margin = Sales - Variable expenses = $600,000 - $120,000 = $480,000  CM ratio = Contribution margin ÷ Sales = $480,000 ÷ $600,000 = 0.8  Dollar sales to break even = Fixed expenses ÷ CM ratio = $300,000 ÷ 0.8 = $375,000 | | |
| 57. | Holdt Inc. produces and sells a single product. The selling price of the product is $230.00 per unit and its variable cost is $66.70 per unit. The fixed expense is $212,290 per month. The break-even in monthly unit sales is closest to:      |  |  | | --- | --- | | **A.** | 1,300 |  |  |  | | --- | --- | | B. | 3,183 |  |  |  | | --- | --- | | C. | 1,802 |  |  |  | | --- | --- | | D. | 923 |   Unit sales to break even = Fixed expenses ÷ Unit CM = $212,290 ÷ ($230.00 per unit - $66.70 per unit) = $212,290 ÷ $163.30 per unit = 1,300 units | | |
| 58. | Carlton Corporation sells a single product at a selling price of $40 per unit. Variable expenses are $22 per unit and fixed expenses are $82,800. Carlton's break-even point is:      |  |  | | --- | --- | | **A.** | 4,600 units |  |  |  | | --- | --- | | B. | 3,764 units |  |  |  | | --- | --- | | C. | 5,000 units |  |  |  | | --- | --- | | D. | 2,070 units |   Unit sales to break even = Fixed expenses ÷ Unit CM = $82,800 ÷ ($40 per unit - $22 per unit) = $82,800 ÷ $18 per unit = 4,600 units | | |
| 59. | Lore Corporation has provided the following information:      Lore's break-even point in dollar sales is:      |  |  | | --- | --- | | A. | $50,000 |  |  |  | | --- | --- | | B. | $10,000 |  |  |  | | --- | --- | | **C.** | $12,500 |  |  |  | | --- | --- | | D. | $40,000 |   CM ratio = Contribution margin ÷ Sales = ($200,000 - $40,000) ÷ $200,000 = 0.8  Dollar sales to break even = Fixed expenses ÷ CM ratio = $10,000 ÷ 0.8 = $12,500 | | |
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| 69. | Data concerning Cutshall Enterprises Corporation's single product appear below:      The unit sales to attain the company's monthly target profit of $16,000 is closest to:      |  |  | | --- | --- | | A. | 3,872 |  |  |  | | --- | --- | | B. | 2,320 |  |  |  | | --- | --- | | C. | 4,834 |  |  |  | | --- | --- | | **D.** | 4,462 |   Unit CM = Selling price per unit - Variable expenses per unit = $190.00 per unit - $91.20 per unit = $98.80 per unit  Unit sales to attain a target profit = (Target profit + Fixed expenses) ÷ Unit CM = ($16,000 + $424,840) ÷ $98.80 per unit = $440,840 ÷ $98.80 per unit = 4,462 units | | |