Dawson College: Business Mathematics: 201-801-DW

Assignment 2

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| Name | | | |
| Student ID | | • | |
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- Spade Realty sold lots for \$23240 per hectare. What is the total sales value if the lot sizes, in hectares, were $2\frac{1}{2}$, $3\frac{1}{4}$, $4\frac{1}{5}$?
- Three mechanics worked $15\frac{1}{2}$, $14\frac{3}{4}$, $18\frac{1}{8}$ hours respectively. What was the total cost of labor if the mechanics were paid \$14.75 per hour?
- Three workers worked $10\frac{1}{2}$, $15\frac{3}{5}$, $20\frac{1}{4}$ hours respectively. What was the total cost of labor if the workers were paid \$20.00 per hour?
- ◆ Conor had to pay income taxes of \$3440.00 plus 22% of the amount by which his taxable income exceeded \$36 000.00. If his tax bill was \$3684.00, calculate his taxable income.
- Bow Valley Electronics sold a mini stereo set during a sale for \$776. Determine the regular selling price of the set if the price of the set had been reduced by 1/4 of the original regular selling price.
- The zinc department of a factory occupies 500 square metres more than 2 times the floor space occupied by the copper department. The total floor space is 9500 square metres.
 Determine the floor space occupied by the cooper department.
- After reducing the regular selling price by 1/7, Moon Electronics sold a TV set for \$294. What was the regular selling price?
- A machine requires 4 hours to make a unit of Product A and 7 hours to make a unit of Product B. The machine operated for 810 hours producing a total of 150 units. How many units of Product B were produced?
- A company employs 204 employees. There are three shifts. There are three times as many on the first shift as on the second shift, and four more on the third shift than on the second shift. Determine how many were on each shift.
- A rubber tube 120 cm long is cut into two pieces so that the longer piece is 30 cm longer than twice the length of the shorter piece. What is the length of the longer piece?
- Extend each of the following and determine the total.

| Quantity | Unit Price |
|----------|--------------------|
| 48 | \$2.45 |
| 48 | $$0.83\frac{1}{8}$ |
| 16 | \$2.12 |
| 60 | $$1.33\frac{1}{6}$ |

• Express in logarithmic form: $3^9 = 19683$

• Express in logarithmic form: $10^{-4} = 0.0001$

• Express in logarithmic form: $e^{-3x} = 12$

• Evaluate: ln 60

• Evaluate: ln[400(1.17⁷)]

Set up a ratio to represent the following:
 10 quarters to 12 dimes to 16 nickels

• Set up a ratio to represent the following: one-half of an hour to 18 minutes

• Solve: n:6 = 24:42

• Solve: 7:5 = x:40

• Solve: 4.2:x = 4.375:25.6

• Solve: $\frac{3}{4}:t = \frac{5}{16}:\frac{4}{9}$

• Solve: $\frac{16}{7} \cdot \frac{7}{9} = \frac{15}{11} \cdot t$

\$36 is what percent of \$14?

• 165% of what amount is \$370?

• What is $\frac{1}{5}$ % of \$12150?

| ** F51 | | • | | | |
|--------|--|-------|---|---|--------------|
| | • The cost of a unit is made up of \$7.25 direct material cost, \$4.75 direct labor cost, and \$3.50 overhead. What is the ratio that exists between the three elements of cost? |) | | | _ |
| (| • Departments <i>A</i> , <i>B</i> , and <i>C</i> occupy floor space of 310, 120 and 475 square meters respectivel If the total rental for the space is \$38 225.00 per month, how much rent should be paid by Department <i>B</i> ? | y. | | | = |
| | • Sean, Paul and Wallis decide to buy a propertys, agreeing to share profit in a ratio of $\frac{1}{3}$. | : | | | _ |
| | $\frac{1}{5}$, which is in the same ratio as they spent on the property. If they end up making | | | · | |
| | \$20000.00, calculate how much each should receive from the sale of the property. | | | | |
| | A Clothing company has found that, based on past experience, \$17.50 must be spent on labour costs for every \$13.25 spent on materials. If a budget of the year 2005 is set at \$231 875.00 for materials, calculate the amount that must be budgeted for labour. | | | | |
| | The community of Oakville sets a property tax rate of \$25.5 per \$1000 assessed valuation. What is the assessment if a tax of \$554 is paid on a property? | | | | · - |
| | • Determine the net cost of an article listed at \$12050.00 less 20%, 16%, $9\frac{1}{3}$ %. | · . | | | |
| (| Overhead content in an article is 37 1/2% of total cost. How much is the overhead cost if the total cost is \$72? | ne | | - | - |
| | A property was sold for 250% of what the vendors originally paid. If the vendors sold the property for \$218 000, how much did they originally pay for the property? | | | | <u>.</u> |
| | ● A hitch and trailer listed at \$2149.00 has a net price of \$1360.00. What is the rate of discount? | · · · | | | · . |
| | A store advertises a discount of \$54.72 on sandals. If the discount is 33.5%, for how much were the sandals sold? | | | | · |
| | Kaz purchases an article with a net price of \$114.54 after a discount of 17% was allowed. Calculate the list price. | | • | • | · |
| | • The net price of an article is \$84.62. What is the list price if a discount of 17% was allowed | .? | | | |
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