

ML8 Chapter 4 Problems of the Week Answers

BLM 4–4 Chapter 4 Problems of the Week

1. a) In July the discount price for the dress is $\$79.99 - \$7.99 = \$72.00$. In August, the discount price for the dress is $\$72.00 - \$14.40 = \$57.60$.

b) No. If the dress was actually for sale at 30% off, it would cost $\$55.99$.

2. The original price of the lawn mower was

$$\$150.00. \quad \frac{x}{100} = \frac{93}{62}; \quad x = \$150.00$$

3. a) Answers will vary depending on the tax rates where students live. Yes, combining the cost and the tax percents works. Example: In Saskatchewan, the cost of an item (1) plus the combined tax (0.10) is equal to multiplying the cost of the item by 1.10.

b) Brian determines the final cost by subtracting what is left after the discount. $100 - 35 = 65$.

The sale price is 65% of the original price.

c) Answers will vary depending on PST and GST rates. Example: In Saskatchewan: $1699.00 \times .80 \times 1.10 = 1495.12$. The total cost is $\$1495.12$.

4. a) Calculating taxes separately: $39.98 + 3.75 = 43.73$; PST = 2.19; GST = 2.19. The total cost is $\$48.11$. Combining tax percents: $39.98 + 3.75 = 43.73$; $43.73 \times .10 = 4.37$; $43.73 + 4.37 = \$48.10$. The total cost is $\$48.10$. There is no difference in price.

b) The total cost in other provinces will vary. Alberta will be the least expensive (no PST) and Newfoundland will be the most expensive.

5. Answers will vary but may include that 0.76 is greater than 0.75 by 0.01, and so should be greater by 0.05.

6. $5^2 \div 4^2 = 25 \div 16 = 1.4525 \approx 1.6\%$

7. $12.5\% \times 30 = 3.75$. The head should be 3.75 cm.

8. 8% of 2800 = 224; $224 + 126 = 350$. The Henri family spent $\$350$ on clothing. $350 \div 2800 = 0.125$ or 12.5%. The Henri family's clothing purchases represented 12.5% of their monthly budget.