Chapter 4 Problems of the Week

1. a) The owner of a fashion store offered 10% off all items in July, and then an additional 20% off all items in August. Kelsey wants to buy a dress that was originally $79.99. How much will she pay for the dress? **b)** The store sign advertises that all items are now on sale for 30% off the original price. Is the advertising claim on the sign accurate? Explain.	**2.** At a garage sale Mr. Turf sells a lawn mower for $93, which represents 62% of the original selling price. What price did Mr. Turf originally charge for the lawn mower? Show your work.
3. a) Consumers in Alberta often calculate the total cost of taxable items by multiplying the price of an item by 1.05. In Saskatchewan, consumers multiply by 1.10. What number would you multiply by where you live? Does combining the cost and tax percents give the correct total cost of an item? Explain. **b)** When an item is advertised as 35% off, Brian multiplies the original price by 0.65 to determine the sale price. Explain how his method works. **c)** You want to buy a TV that costs $1699 and is advertised at 20% off. Use the short cuts in parts a) and b) to help calculate the total cost of the TV (including taxes) where you live.	**4.** A sporting goods store publishes a catalogue each year. Customers who order items pay tax based on the province to which the item is shipped. A shipping and handling charge of $3.75 is added to each order before PST and GST are calculated. In Saskatchewan, PST is 5% and GST is 5%. **a)** Determine the total cost of ordering a $39.98 camping stove if you lived in Regina, SK. Calculate your answer in two ways: by calculating the taxes separately, and by combining the tax percents. Does using different methods make a difference? Explain. **b)** Research the tax rates in three other provinces. In which province does the stove cost the most? the least?
5. Is 76% × 5 *or* 75% × 5 greater? Without calculating, think of a reason to support your answer. Explain your reason to a classmate.	**6.** By what percent is 5^2 greater than 4^2? Round to the nearest tenth.
7. The instructions for sketching an adult male say that the head should be 12.5% of the total height. If the total drawn height of a 183-cm man is 30 cm, how many centimetres should the drawing of the head be? Express your answer to the nearest hundredth.	**8.** The Henri family's monthly budget for clothing represents 8% of their total budget. In addition to the 8% allowance, they spent another $126 on clothing this month. If the Henri family earns $2800 per month, what percent of their income did they spend on clothes?