Problem Solving: Multiple-Step Problems

Multiple-step problems often contain hidden questions. Sometimes you cannot answer the problem until you have answered these hidden questions.

James and Raul designed and printed T-shirts for school spirit week. James had 35 T-shirts printed and Raul had 3 times that number printed. It costs $3.25 each to print the T-shirts. How much did it cost altogether for James and Raul to print the T-shirts?

Hidden question: How many T-shirts did Raul have printed?

$\quad$ 35 T-shirt $\times$ 3 = 105 T-shirts

Solve the problem:

$\quad$ 35 + 105 = 140

$\quad$ 140 $\times$ $3.25 = $455

Answer: It cost $455 to print the T-shirts.

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1. The school store offers a discount for purchases made during lunchtime. The usual price of pencils is $0.25. The discount price is $0.15. How much can you save by buying 5 pencils during lunchtime?

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2. Janine practiced piano for 1.25 hours each day Monday through Friday. Her sister Emily practiced twice as long as Janine on Wednesday, Thursday, and Friday. Who practiced more hours during the week?

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3. During a week-long dry spell, the water level in a pond decreased by 4 in. per day, except for two days when it decreased by half that amount. How much did the water level decrease in the pond in one week?

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4. **Critical Thinking** What hidden questions did you have to answer to solve the above problem?

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