

This packet of applied skills problems will contain two sample problems similar to the grade 10 ISTEP+ assessment in March.

Please follow these guidelines:

- Work independently
- You may use a calculator
- The **maximum time is 16 minutes** for both problems
- Show your work and/or explain your answer

Name: _____

Teacher's Use Only				
Constructed	#1	Content	Process	Total
Extended	#2	Content	Process	Total
Score				

#1

Melanie is buying professional outfits for her new job. She has \$300 dollars budgeted to spend on the new outfits. Pants cost \$25 each. Skirts cost \$32 each. Blouses cost \$28 each. Sales tax in Indiana where she plans to purchase her outfits is 8%.

Part A

Write an inequality that would represent the number of each item she could purchase including sales tax and still stay within her budget. Be sure to define the variables you are using for your inequality.

Define the variables:

Inequality:

Part B

She plans to purchase at least three pairs of pants, at least two skirts and at least five blouses. She wants to use various combinations of pants, skirts and blouses to make outfits to wear for each day of the week. Can Melanie make her purchase and stay within her budget? Use words, numbers, and/or symbols to justify your answer.

Show All Work

Answer _____

#2

Zach has a basic cell phone plan that does not include texting. He is going to add a multimedia texting package to his cell phone plan. He has two choices of multimedia texting packages, A and B. Package A charges \$0.25 per multimedia text with no monthly fees for the multimedia texting package. Package B charges \$0.20 per multimedia text, but has a \$15 monthly fee for the multimedia texting package.

Part A

Write an equation that represents the total cost for each multimedia texting package if any amount of multimedia texts are sent. Be sure to define the variables you are using for your equation.

Define the variables:

Package A Equation:

Package B Equation:

Part B

How many multimedia texts will Zach have to send each month for the two multimedia texting packages to be the same cost? Use words, numbers, and/or symbols to justify your answer.

Show all Work

Answer _____ texts

Part C

Zach plans to send 250 multimedia texts each month. Which multimedia texting package would be the least expensive package for Zach to add to his cell phone plan? Show all work using words, numbers, and/or symbols to justify your answer.

Show all Work

Answer _____