

K-PREP
Sample Items
2012

Mathematics Grade 7

1

A school cafeteria makes 4 different salads during the week but serves only 2 each day on a rotating basis. The 4 salads are listed below.

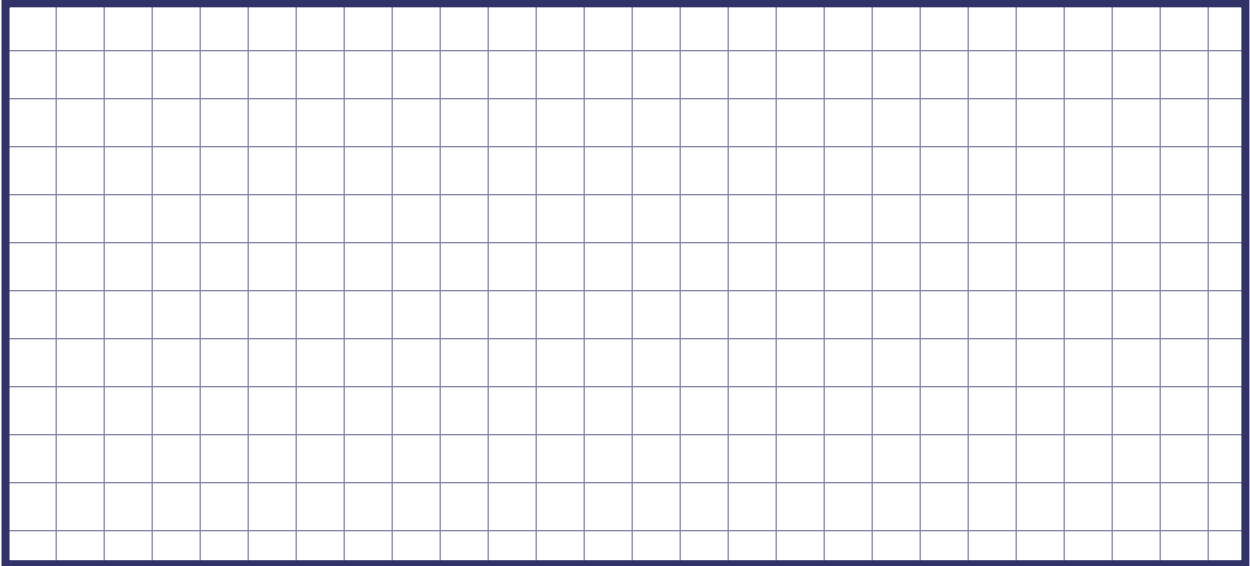
- Chicken (C)
- Fruit (F)
- Pasta (P)
- Tuna (T)

Part A Use the letters C, F, P, and T to list all outcomes of 2 salads.

Part B A student randomly chooses a day to buy a cafeteria salad without knowing which 2 salads are being served. What is the probability the student chooses a day the cafeteria is serving chicken salad, pasta salad, or both? Show your work or explain your thinking.

Mathematics

Do not write outside this box.



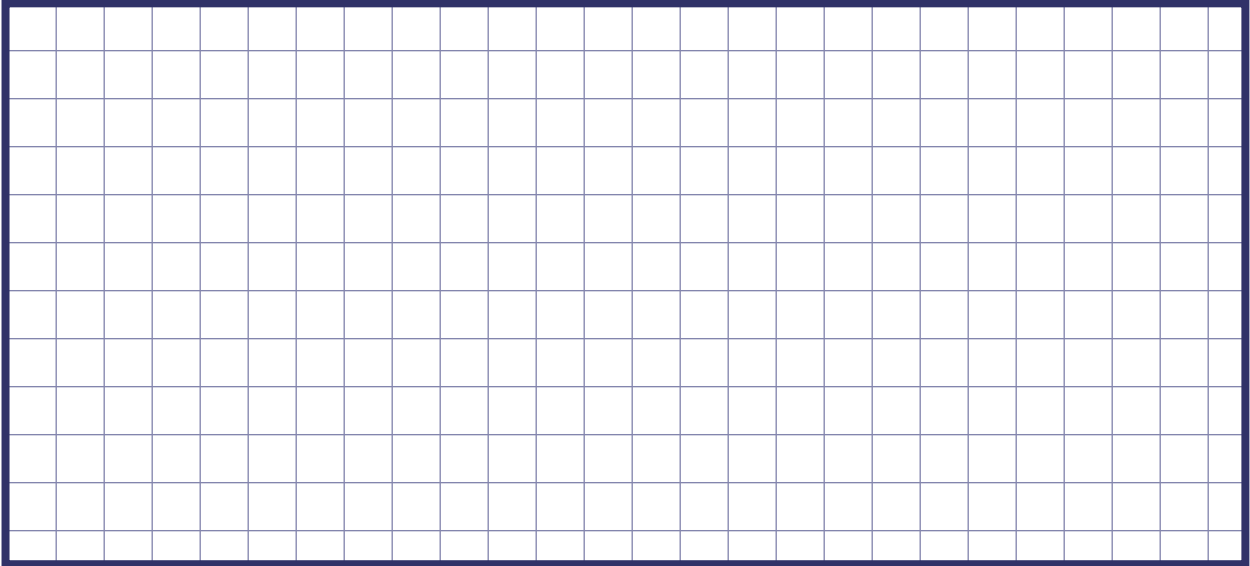
Using your ruler, draw $\triangle XYZ$ so that it has the side lengths listed below. The measure of $\angle X = 45^\circ$. Be sure to label your triangle.

- $\overline{XY} = 2$ inches
- $\overline{YZ} = 2\frac{1}{2}$ inches
- $\overline{ZX} = 3\frac{1}{2}$ inches

Using your protractor, determine the angle measures of $\angle Y$ and $\angle Z$. Be sure to label the angle measures.

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Part A On your answer document, draw a coordinate plane that uses only Quadrant 1. Label the x -axis and the y -axis on the grid. Plot the points $(3, 2)$ and $(9, 6)$. Then, draw a line through the points so that the line extends to the edges of your coordinate plane.

Part B Write each given point as a ratio and show how the ratios are proportional. Show your work and explain your thinking.

Part C What does your line indicate about the proportionality of the two points in relation to the origin? Explain your thinking.

Part D Write a different point that is proportional to $(9, 6)$. Explain how you determined the point.

Mathematics

Do not write outside this box.

