Unit 3 Performance Task

Main Squeeze

Abby squeezed the juice from 4 oranges and made 1 cup of orange juice. Each orange provides the same amount of juice.

PART A

Complete the table of values to show the relationship between the number of cups of orange juice that are made by squeezing the juice from different numbers of oranges

Number of Oranges	Number of Cups of Juice
4	1
5	
	6

PART B

What is the constant of proportionality?

PART C

Show or explain all the steps you used to complete the table.

PART D

Abby buys bags containing 10 oranges each. She wants to squeeze the juice from enough oranges to make $\frac{1}{2}$ gallon of orange juice. Abby cannot buy partial bags of oranges. 1 gallon = 16 cups.

How many bags of 10 oranges will Abby need to buy to make $\frac{1}{2}$ gallon of orange juice? Show or explain all the steps you used to determine your answer.

Main Squeeze Scoring Rubric

Part	Solution	Points	Section Points
A	<table><tr><th>Number of Oranges</th><th>Number of Cups of Juice</th></tr><tr><td>4</td><td>1</td></tr><tr><td>5</td><td>$\frac{5}{4}$</td></tr><tr><td>24</td><td>6</td></tr></table>	1 point for $\frac{5}{4}$ 1 point for 24	2 points
B	Correct value of $k = \frac{1}{4}$	1 point for correct answer	1 point
C	Correctly model a strategy for finding Part B. General explanation that one orange is equal to $\frac{1}{4}$ cup Or shows $5 \cdot \frac{1}{4} = \frac{5}{4}$ and $6 \div \frac{1}{4} = 24$	1 point for explanation	1 points
D	$\frac{1}{2}$ gallon $= 8$ cups $8 \div \frac{1}{4} = 32$ oranges You must buy 4 bags of 10 oranges	1 point for explanation 1 point for correct number of bags	2 points
		TOTAL POINTS	6 points