

Name: _____

Party

Sarah is organizing a party on the Vine House Hotel.

Vine House Hotel
Your fab party place!

Charges
\$750 for up to 30 people
plus
\$20 per person for each extra person

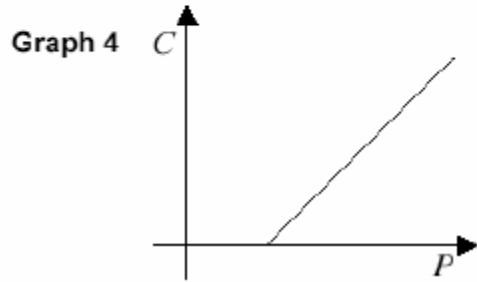
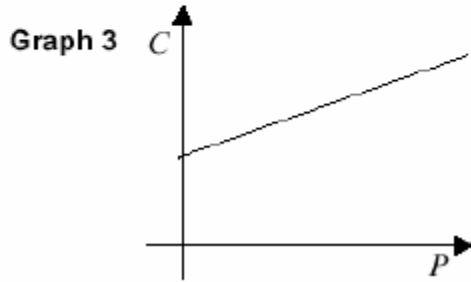
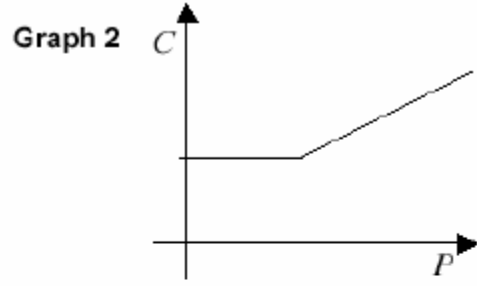
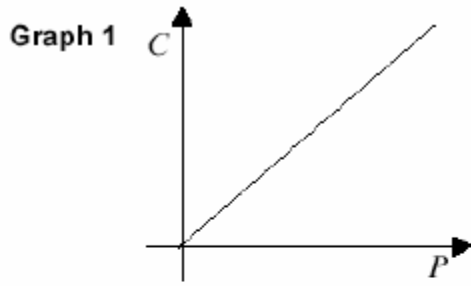
1. Sarah thinks there will be 60 people at the party. Show that the cost will be \$1350.

2. What is the cost of a party for 100 people at the Vine House Hotel? \$ _____
Show how you figured it out.

3. C dollars is the cost of the party for P people. Find an equation that gives C in terms of P.

4. Sarah's party cost \$1750 in all.
How many people came to the party?
Show your calculations.

5. Which of these graphs shows the connection between the number of people at the party, P , and the cost, C ?



Explain how you figured it out.

Party	Test 8 Rubric	
<p>The core elements of performance required by this task are:</p> <ul style="list-style-type: none"> choose and use number operations in context find and use an algebraic formula relate formulae and graphs <p>Based on these, credit for specific aspects of performance should be assigned as follows</p>	points	section points
<p>1. Shows necessary steps in the calculation: Cost = \$750 + 30 x \$20 = \$750 + \$600 = \$1350</p>	1	1
<p>2. Gives correct answer: \$2150</p> <p>Shows work such as: 750 + 70 x 20</p>	1 1	2
<p>3. Writes correct formula: $C = 750 + 20(P - 30)$ or equivalent when $P \geq 30$</p> <p><i>Partial credit:</i> $C = 750 + 20P$</p>	2 1 (1)	3
<p>4. Gives correct answer: 80</p> <p>Shows work such as: $1750 = 750 + 20(P - 30)$</p>	1 1	2
<p>5. Gives correct answer: Graph 2</p> <p>Gives a correct explanation such as: The graph starts with a horizontal line because C is constant for the first 30 people, and then rises linearly.</p>	1 1	2
Total Points		10