

Mathematics Grade 6 Unit 08 – Rubric 1

Grade/Subject/(Course)

Grade 6 / Mathematics

Course Version

Performance Assessment(s)

Mathematics Grade 6 Unit 08 PA 01

Provide students with a copy of a four quadrant coordinate plane.

Analyze the problem situation(s) described below. Organize and record your work for each of the following tasks. Using precise mathematical language, justify and explain each solution process.

1. Luis invented a new tool that he wants to sell to hardware stores. He sent the set of ordered pairs shown below to a plastics designer, so a prototype of the tool can be cut from a sheet of plastic.

(0, -4.5)
(-3, -3)
(-7.5, -3)
(-3.25, 0)
(-6.25, 2.5)
(-1, 2.5)
(-1, 5.75)
(-8.5, 4)
(-8.5, 6.5)
(-1, 8.25)
(1, 8.25)
(8.5, 6.5)
(8.5, 4)
(1, 5.75)
(1, 2.5)
(6.25, 2.5)
(3.25, 0)
(7.5, -3)
(3, -3)
(0, -4.5)

- a. Graph and connect each of the ordered pairs on a coordinate plane to create a template for Luis' tool.
2. Josh works at a manufacturing plant that offers college savings incentives for their employees. The company contributes a flat amount towards any money Josh chooses to place in a college savings account from his paycheck. The table below displays the amount of money Josh chose to deposit in a college savings account and the actual amount of money deposited into his college savings account after his employer's contribution.

Amount Josh Contributes (dollars)	Total Deposit Inclusive of Employee and Company Contributions (dollars)
\$22.99	\$38.74
\$34.74	\$50.49
\$46.83	\$62.58
\$104.09	\$119.84

- a. Consider the situation and identify the independent and dependent quantities in the table.
- b. Write an equation that represents the relationship between the independent and dependent quantities from the table.

- c. Describe whether the situation represents an additive or multiplicative relationship. Explain your reasoning.
3. Shannon makes handmade crafts and sells them online. In order to make a profit, she uses the equation $y = 2.75x$ to calculate the online selling price for her craft, y , after determining the amount of money she invested to make the craft, x .
- a. Represent the situation using a table and graph.
- b. Use the table to identify the independent and dependent quantities in the situation.
- c. Describe whether the situation represents an additive or multiplicative relationship. Explain your reasoning.

Standard(s): [6.1A](#) , [6.1B](#) , [6.1C](#) , [6.1D](#) , [6.1E](#) , [6.1F](#) , [6.1G](#) , [6.4A](#) , [6.6A](#) , [6.6B](#) , [6.6C](#) , [6.11A](#)

ELPS [ELPS.c.1A](#) , [ELPS.c.2D](#) , [ELPS.c.2E](#) , [ELPS.c.3C](#) , [ELPS.c.3D](#) , [ELPS.c.3H](#) , [ELPS.c.4D](#) , [ELPS.c.4F](#) , [ELPS.c.4H](#) , [ELPS.c.5B](#) , [ELPS.c.5F](#) , [ELPS.c.5G](#)