Quiz IM 3.1 – 3.4: Proportional Relationships

1) What is the equation of the line below in $y = kx$ form?
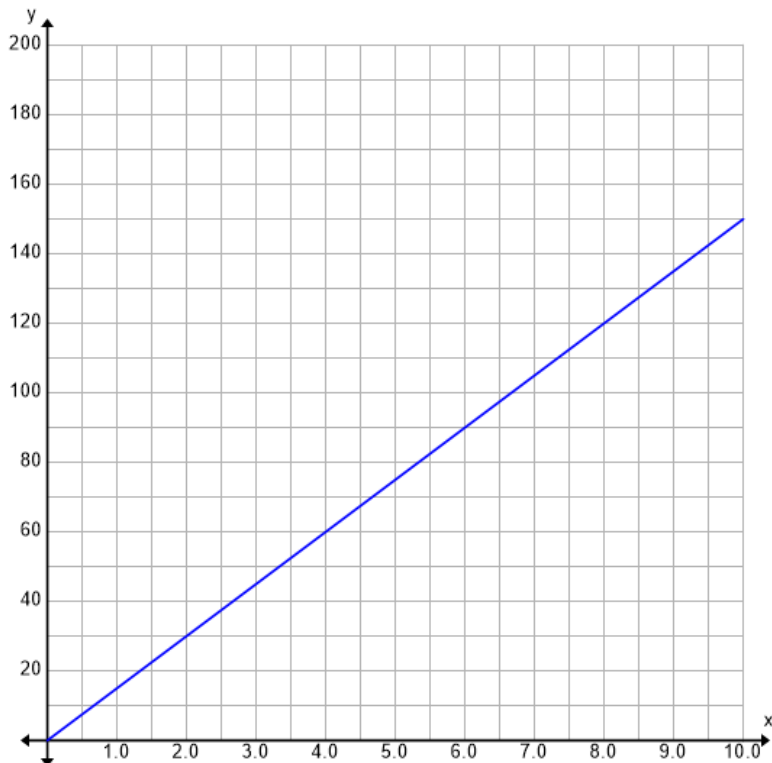
2) Melvin knows that the relationship between the cost in dollars (**y**) and the number of pounds of rice he buys (**x**) is proportional. Which of the following equations could represent this relationship?

a. $y = 0.75x + 10$

b. $y = 0.75x$

c. $\dfrac{y}{x} = 0.75$ ____ _____

d. $\dfrac{y-10}{x-1} = 0.75$ ____ _____

e. $y = \dfrac{3}{4}x$ _____ _____

f. $y = \dfrac{3}{4}x + 10$ _____ _____

g. $y = \dfrac{10}{x}$ _____ _____

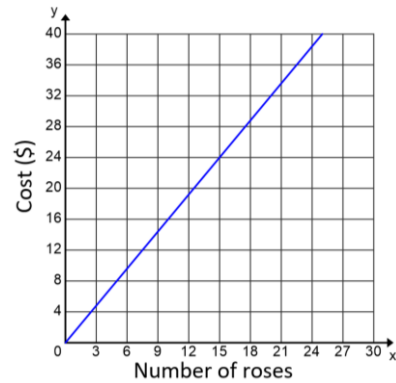**3)** Juan wants to buy flowers for his mom for her birthday, so he checks four stores. Store A gives a table of their prices, store B gives a graph, Store C gives an equation, and Store D gives you a flyer.

Store A

Number of Roses	Cost
5	$6.25
10	$12.50
20	$25.00

Store B

Store C

$$C = \$1.50r$$

Where C is the total cost and r is the number of roses purchased
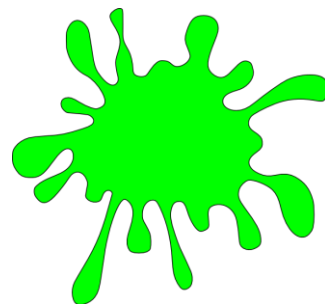
Store D

Rose Sale

$16 per dozen

Which flower shop gives the best price for flowers? Show your work and explain your reasoning.

4) Elliot is making slime. The slime recipe he's using calls for 16 oz of glue and 0.75 oz of Borax. He has 6 oz of Borax and wants to make as much slime as he can.

a) Complete the table showing at least 4 data points for different amounts of slime.

Glue	Borax

b) Label, scale and complete a graph that shows the relationship between glue and Borax.
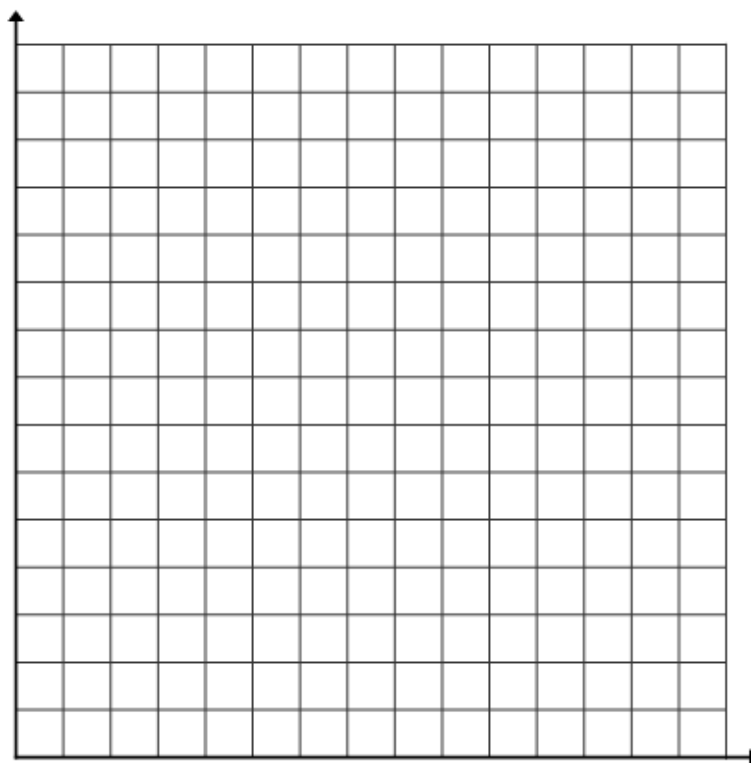
c) Write an equation using g for glue and b for Borax that represents this relationship.

d) If Elliot uses all 6 oz of Borax, how much glue would he need?

e) If Elliot uses 96 oz of glue, how much Borax would he need?