$\qquad$ Date $\qquad$ Class $\qquad$
TEKS G.7.B

## Problem Solving <br> 3-6. Lines in the Coordinate Plane

## Use the following information for Exercises 1 and 2. Josh can order 1 color ink cartridge and 2 black ink cartridges for his printer for $\$ 78$. He can also order 1 color ink cartridge and 1 black ink cartridge for \$53.

1. Let $x$ equal the cost of a color ink cartridge and $y$ equal the cost of a black ink cartridge. Write a system of equations to represent this situation.
2. Ms. Williams is planning to buy T-shirts for the cheerleading camp that she is running. Both companies' total costs would be the same after buying how many T-shirts? Use a graph to find your solution.

|  | Art Creation <br> Fee | Cost per <br> T-shirt |
| :--- | :---: | :---: |
| Company A | $\$ 70$ | $\$ 10$ |
| Company B | $\$ 50$ | $\$ 12$ |

## Choose the best answer.

4. Two floats begin a parade at different times, but travel at the same speeds. Which is a true statement about the lines that represent the distance traveled by each float at a given time?
A The lines intersect.
B The lines are parallel.
C The lines are the same.
D The lines have a negative slope.
5. Serina is trying to decide between two similar packages for starting her own Web site. Which is a true statement?
A Both packages cost $\$ 235.50$ for 5 months.
B Both packages cost $\$ 295$ for 10 months.
C Both packages cost $\$ 355$ for 15 months.
D The packages will never have the same cost.
6. What is the cost of each cartridge?

7. A piano teacher charges $\$ 20$ for each half hour lesson, plus an initial fee of $\$ 50$. Another teacher charges $\$ 40$ per hour, plus a fee of $\$ 50$. Which is a true statement about the lines that represent the total cost by each piano teacher?

F The lines intersect.
G The lines are parallel.
H The lines are the same.
J The lines have a negative slope.

|  | Design and <br> Setup | Monthly Fee <br> to Host |
| :---: | :---: | :---: |
| Package A | $\$ 150.00$ | $\$ 14.50$ |
| Package B | $\$ 175.00$ | $\$ 12.00$ |

$\qquad$ Date $\qquad$ Class $\qquad$
TEKS G.7.B

## Problem Solving <br> 3-6 Lines in the Coordinate Plane

Use the following information for Exercises 1 and 2. Josh can order 1 color ink cartridge and 2 black ink cartridges for his printer for $\$ 78$. He can also order 1 color ink cartridge and 1 black ink cartridge for $\$ 53$.

1. Let $x$ equal the cost of a color ink cartridge and $y$ equal the cost of a black ink cartridge. Write a system of equations to represent this situation.

$$
x+2 y=78, x+y=53
$$

3. Ms. Williams is planning to buy T -shirts for the cheerleading camp that she is running. Both companies' total costs would be the same after buying how many T-shirts? Use a graph to find your solution.

|  | Art Creation <br> Fee | Cost per <br> T-shirt |
| :--- | :---: | :---: |
| Company A | $\$ 70$ | $\$ 10$ |
| Company B | $\$ 50$ | $\$ 12$ |

## Both companies total costs would

be the same for 10 T -shirts.

## Choose the best answer.

4. Two floats begin a parade at different times, but travel at the same speeds. Which is a true statement about the lines that represent the distance traveled by each float at a given time?
A The lines intersect.
(B) The lines are parallel.

C The lines are the same.
D The lines have a negative slope.
6. Serina is trying to decide between two similar packages for starting her own Web site. Which is a true statement?
A Both packages cost $\$ 235.50$ for 5 months.
(B) Both packages cost $\$ 295$ for 10 months.

C Both packages cost $\$ 355$ for 15 months.
D The packages will never have the same cost.
2. What is the cost of each cartridge?
color: \$28, black: \$25

5. A piano teacher charges $\$ 20$ for each half hour lesson, plus an initial fee of $\$ 50$. Another teacher charges $\$ 40$ per hour, plus a fee of $\$ 50$. Which is a true statement about the lines that represent the total cost by each piano teacher?

F The lines intersect.
G The lines are parallel.
(H) The lines are the same.

J The lines have a negative slope.

|  | Design and <br> Setup | Monthly Fee <br> to Host |
| :---: | :---: | :---: |
| Package A | $\$ 150.00$ | $\$ 14.50$ |
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