

Solving Systems Graphically

Vocabulary:

Point of intersection:

where two or more lines/curves meet

y-intercept :

where the line or curve touches the y axis

Prior knowledge question: In this Gizmo™, a cat is 20 feet from a mouse hole and a mouse is between the cat and the hole. The cat sees the mouse and chases it. The cat ran 20 feet in 5 seconds and the mouse ran 15 feet in 7.5 seconds.

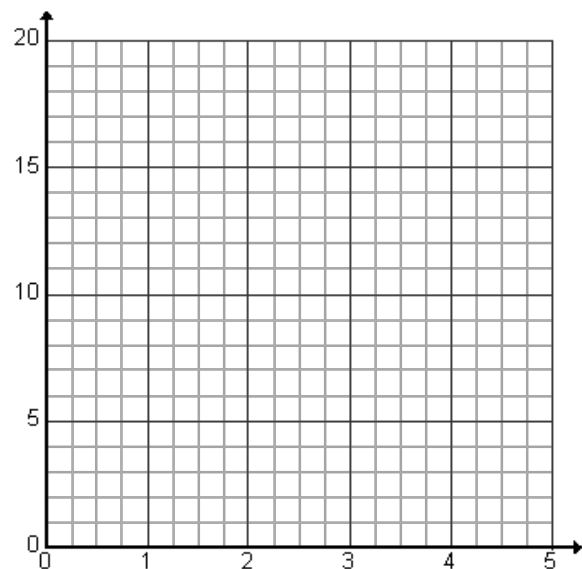
1. Who ran faster, the cat or the mouse? _____ Explain: _____

2. Who ran farther? _____

Mouse and Cat Activity

On the graph displayed in the Gizmo:

1. What is represented on the x-axis? _____
2. What is represented on the y-axis? _____
 - a. How far did the cat have to run to catch the mouse? _____
 - b. For how many seconds did the animals run before the cat caught the mouse? _____
 - c. What are the coordinates of the point of intersection? (_____, _____)



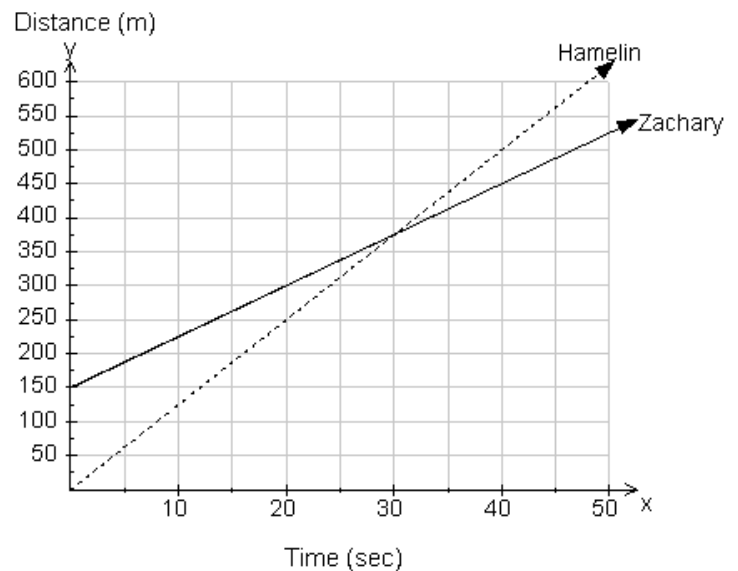
What does the x-value of this point represent? _____

What does the y-value of this point represent? _____

MFM 1PI Linear Relations - Lesson 9 - Two Linear Relations

1. Charles Hamelin just won the gold medal in the 500m short track speed skating event. He skated at an average speed of 12.5 m/s. Zachary is a junior speed skater and can skate at an average speed of 7.5 m/s. If Charles gives Zachary a 150m head start, who will win the 500m race?

- Graphing?
- Table of Values?
- Equation?



2. Diana and Kim live 2.5 km (2500m) apart. They leave their homes at the same time. They travel toward each other's house. Diana is on rollerblades and travels at an average speed of 250m/min. Kim is walking and travels at an average speed of 60m/min. Where and when will they meet?

- Graphing?
- Table of Values?
- Equation?

