

## Unit 4 Lesson 18: Two Related Quantities, Part 2

### 1 Walking to the Library (Warm up)

#### Student Task Statement

Lin and Jada each walk at a steady rate from school to the library. Lin can walk 13 miles in 5 hours, and Jada can walk 25 miles in 10 hours. They each leave school at 3:00 and walk  $3\frac{1}{4}$  miles to the library. What time do they each arrive?

## 2 The Walk-a-thon

### Student Task Statement

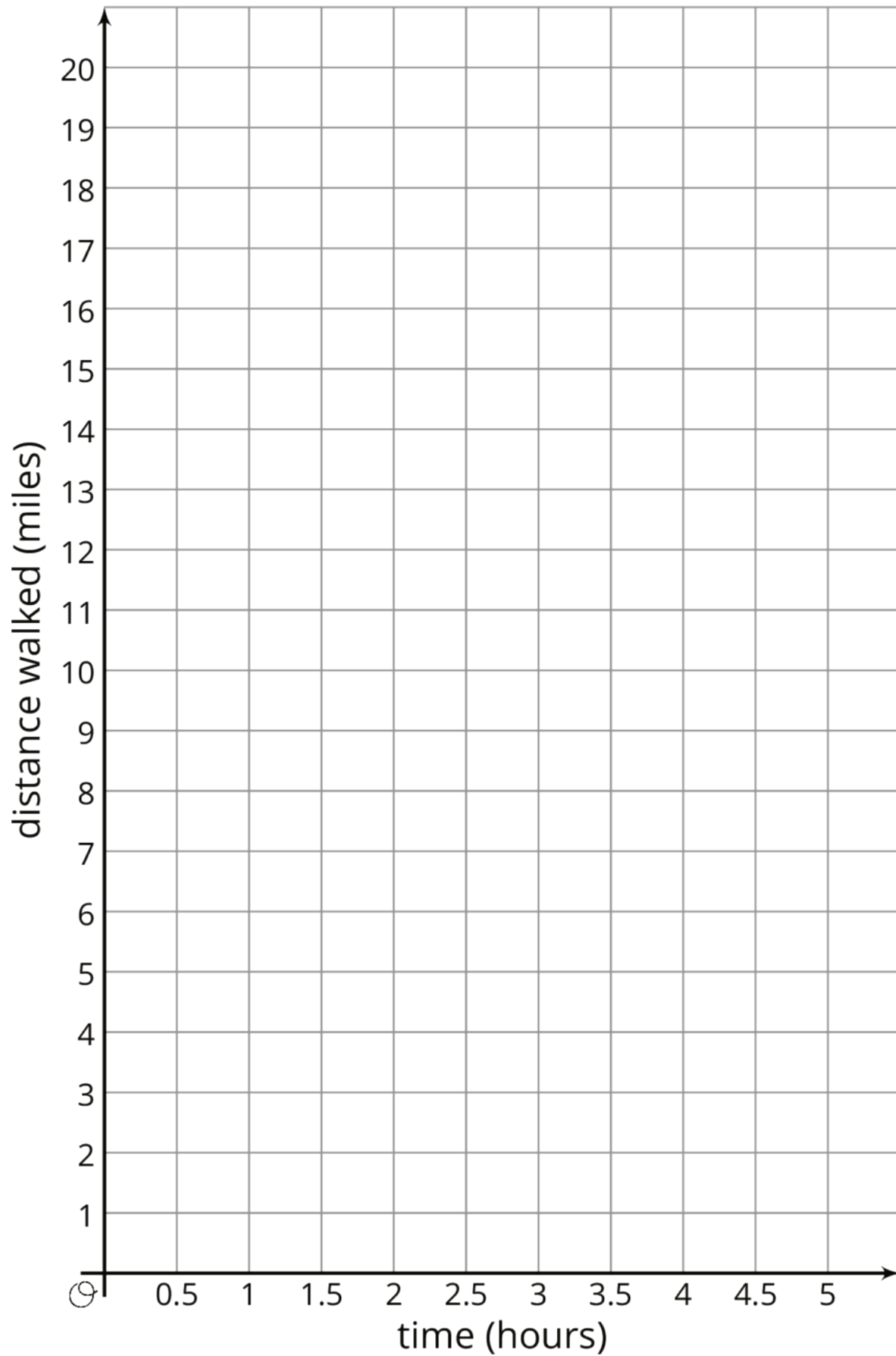
Diego, Elena, and Andre participated in a walk-a-thon to raise money for cancer research. They each walked at a constant rate, but their rates were different.

1. Complete the table to show how far each participant walked during the walk-a-thon.

time in hours	miles walked by Diego	miles walked by Elena	miles walked by Andre
1			
2	6		
	12	11	
5			17.5

2. How fast was each participant walking in miles per hour?
3. How long did it take each participant to walk one mile?

4. Graph the progress of each person in the **coordinate plane**. Use a different color for each participant.



5. Diego says that  $d = 3t$  represents his walk, where  $d$  is the distance walked in miles and  $t$  is the time in hours.
- Explain why  $d = 3t$  relates the distance Diego walked to the time it took.
  - Write two equations that relate distance and time: one for Elena and one for Andre.
6. Use the equations you wrote to predict how far each participant would walk, at their same rate, in 8 hours.
7. For Diego's equation and the equations you wrote, which is the dependent variable and which is the independent variable?