RS 1)

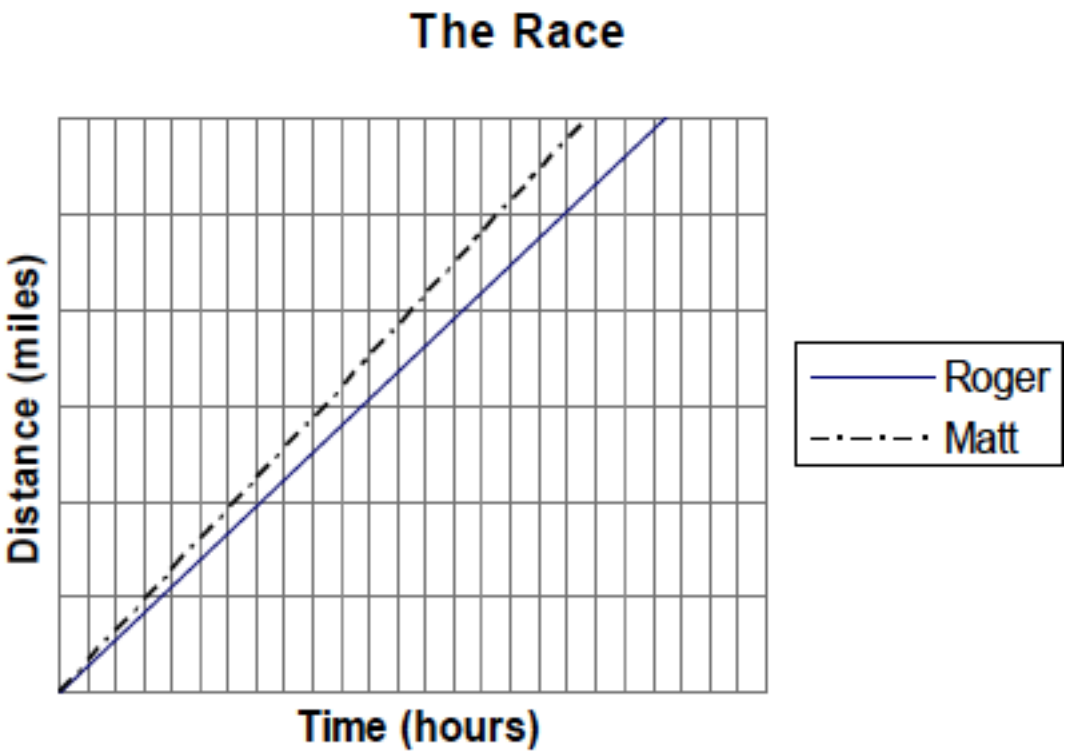
Sally walks 2 miles every day. It takes her 40 minutes. Ashley walks 5 miles and it takes her 1½ hours. Who walks faster?

Show your work.

RS2)

Matt and Roger are very competitive.

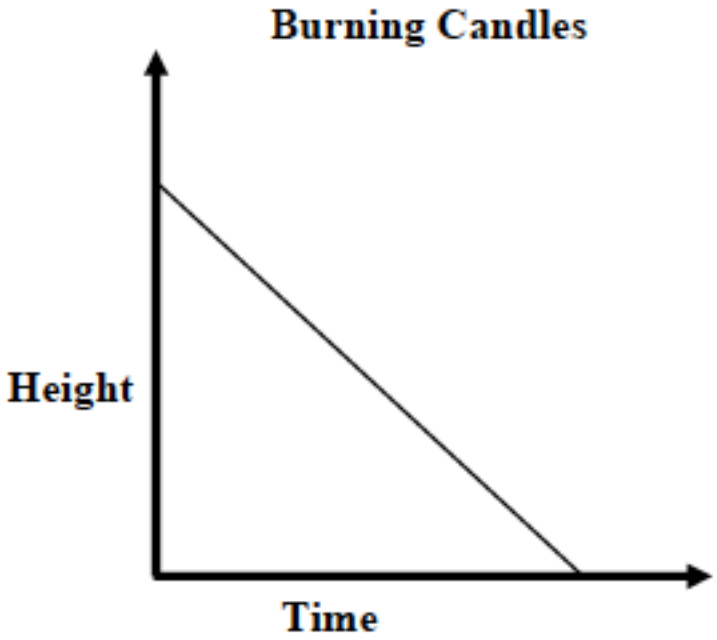
This is a graph they made after their last race.



Who ran faster? Explain your answer.

RS3)

This graph represents the height of a candle as it burned over time. On the same graph, draw a line representing a taller candle that burned faster.

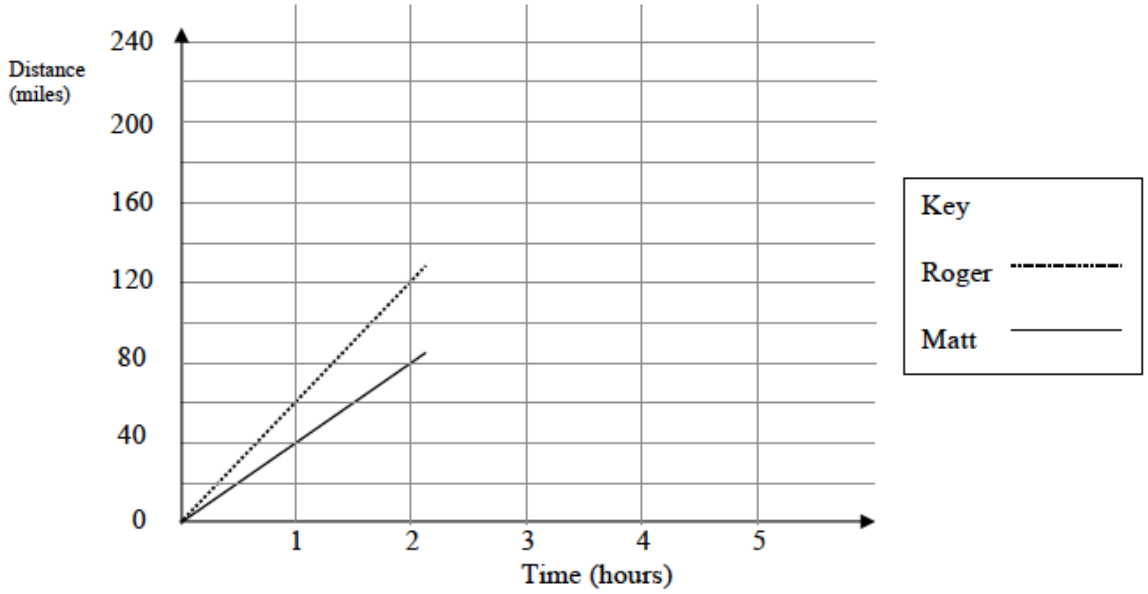


Explain why the line you drew represents a candle burning faster.

RS4)

Roger and Matt will be in a race of 200 miles. The graph shows how Roger and Matt started their race.

Roger and Matt finish the race in a tie. Both Roger and Matt have gone 200 miles in 5 hours.



A. What was Roger's average speed for the first 2 hours of the race? Show your work.

B. What was Matt's average speed over the last 3 hours of the race? Show your work.

RS5)

Sally walks after school each day. She always walks at a rate of 20 minutes per mile.

Tables A, B and C show distances walked for different times. Which table represents the rate at which Sally walks?

Explain your thinking.

Table A	
Distance walked for different times	
Distance (miles)	Time (minutes)
2	40
4	80
6	120

Table B	
Distance walked for different times	
Distance (miles)	Time (minutes)
1	20
2	20
3	20

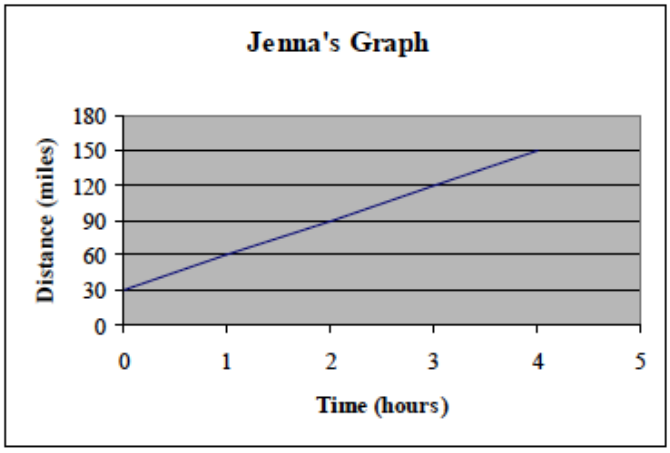
Table C	
Distance walked for different times	
Distance (miles)	Time (minutes)
1	20
3	40
5	60

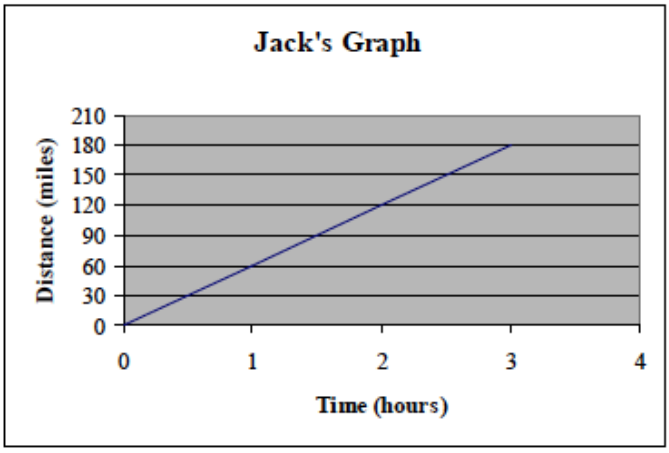
RS6)

A train travels at a constant speed of 60 miles per hour. Jenna and Jack each made graphs to represent the speed of the train.

Study Jenna's and Jack's graphs.

Which graph is correct and why?

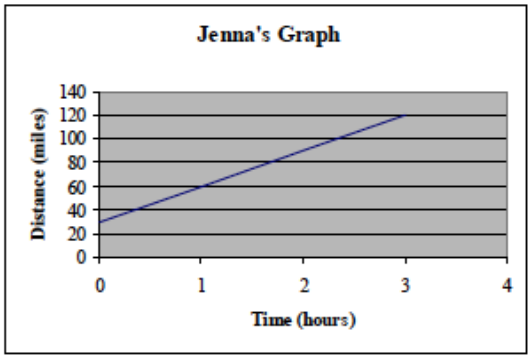


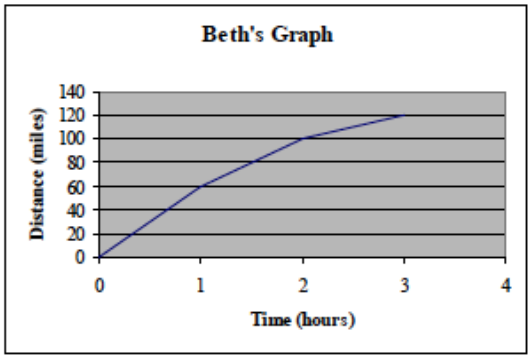


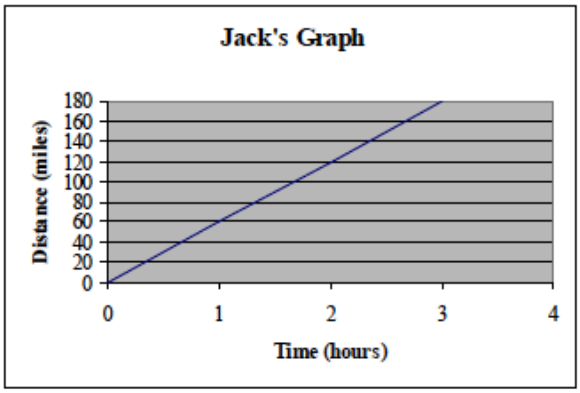
RS7)

A train travels at 60 miles per hour.

Which graph below shows how the speed of this train relates to the time the train travels?







Explain your choice.

RS8)

Chris bikes at a rate of 15 miles per hour. Chris kept track of the time and distance in the table below.

Which table(s) could represent the rate at which Chris bikes? Explain your choice.

Table A	
Distance (miles)	Time (hours)
15	1
30	3
45	5

Table B	
Distance (miles)	Time (hour)
30	2
60	4
90	6

Table C	
Distance (miles)	Time (hour)
15	1
45	3
75	5

RS$_{DRT}$(M): Student ID: _____
Date: _____

RS9)

Harrison hikes at an average rate of 2 miles per hour. Complete the table indicating how far Harrison would hike at this rate for each time listed below.
Show your work.

Distances Hiked by Harrison for Different Times	
Time (hours)	Distance (miles)
3	
4	
6	
10	

RS10)

The tables below show the approximate time it takes two girls to walk different distances. Tommy said Kelsey walked faster. Peter said both girls walked at the same rate. Who is correct?
Explain why?

Distance Walked by Sandra	
Distance (miles)	Approximate Time (minutes)
1	13
2	26
3	39

Distance Walked by Kelsey	
Distance (miles)	Approximate Time (minutes)
4	52
7	91
10	130

RS$_{DRT}$(M): Student ID: _____
Date: _____

RS11)

Carrie drives 135 miles in three hours. Which table below represents the average rate at which Carrie is driving? Explain your choice.

Table A	
Distance (miles)	Time (hours)
90	2
225	5
360	8

Table B	
Distance (miles)	Time (hours)
45	2
225	5
315	7

Table C	
Distance (miles)	Time (hours)
135	1
170	2
205	3

RS12)

To get in shape for soccer season, Marcus ran each day for four days. He recorded the number of miles and the number of minutes he ran in the table below.

Distance and Times Marcus Ran		
Day	**Distance (miles)**	**Time (minutes)**
Monday	2	12
Tuesday	3	20
Wednesday	3	17
Thursday	4	26

Which equation(s) below can be used to determine the *rate* that Marcus ran on *Tuesday*?

Let r = the rate at which Marcus ran.

a. $r = 3 \times 20$

b. $r = 20 \div 3$

c. $r = 3 \div 20$

d. $r = 3 + 20$

Explain your choice(s).

RS$_{DRT}$(M): Student ID: _____
Date: _____

RS13)

To get in shape for soccer season, Marcus ran each day for four days. He recorded the number of miles and the number of minutes he ran in the table below.

Distance and Times Marcus Ran		
Day	**Distance (miles)**	**Time (minutes)**
Monday	2	12
Tuesday	3	20
Wednesday	3	17
Thursday	4	26

What method can Marcus use to determine the *rate* he ran on *Thursday*?

a. Multiply 4 x 26

b. Add 4 + 26

c. Subtract 26 – 4

d. Divide $4 \div 26$

Explain your choice.

RS14)

A train travels from Central Station to Woodland at an average rate of 45 miles per hour. The table below shows the towns at which the train stops and the number of hours the train travels from Central Station.

Towns	Miles from Central Station	Number of hours from Central Station
Central Station	0	0
Elmwood	45	?
Green Valley	180	?
Watertown	225	?
Woodland	270	?

Let d = distance from Central Station and t = the number of hours after leaving Central Station.

Which equation can be used to determine the number of hours the train has been traveling from Central Station when it arrives at the town of Watertown?

a. $t = 225 \times 45$

b. $t = 225 \div 45$

c. $t = 45 \div 225$

d. $t = 45 + 225$

Explain your choice.

RS$_{DRT}$(M): Student ID: _____
Date: _____

RS15)

A train travels from Central Station to Macktown. The table below shows the towns at which the train stops, the hours from Central Station, and the miles from Central Station.

Towns	Hours from Central Station	Miles from Central Station
Central Station	0	0
Woodland	2	110
Northville	5	275
Johnson	6	330
Macktown	7	385

Let d = miles from Central Station and t = the hours from Central Station. Which equation below represents the relationship between the *hours* from Central Station and the *miles* from Central Station?

a. $55t = d$

b. $110t = d$

c. $t \div 110 = d$

d. $t \div 55 = d$

Explain your choice.

RS16)

A train travels from Central Station to Franklin. The table below shows the towns at which the train stops, the hours from Central Station, and the miles from Central Station.

Towns	Hours from Central Station	Miles from Central Station
Central Station	0	0
Three Rivers	2	110
Thomasville	5	275
Mt. Wilton	6	330
Franklin	7	385

Which statement accurately describes the relationship between the *Hours from Central Station* and the *Miles from Central Station?*

a. The train is traveling at a faster rate of speed between Three Rivers and Thomasville than it is between Mt. Wilton and Franklin.

b. As the *Hours from Central Station* increase, the speed of the train increases.

c. At 3 *hours After Leaving Central Station* the train will be 220 miles from Central Station

d. The train is traveling at a constant rate of speed.

Explain your choice.

Student ID: _____

Date: _____

RS17)

Sam ran 3 miles at an average rate of 8 minutes per mile.

How *much time* did it take Sam to run 3 miles?

Show your work.

RS18)

Donna runs at an average rate of 12 minutes per 1 mile.

At this rate how many miles does Donna run in 28 minutes?

Show your work.

Student ID: _____
Date: _____

RS19)

Abby ran the *Fall Classic Marathon*, a 26 mile running race, in 3 hours 30 minutes.

Abby ran the Fall Classic Marathon at an *average rate* of about_____.

A. 12 minutes per mile

B. 10 minutes per mile

C. 8 minutes per mile

D. 6 minutes per mile

Show your work.

RS20)

Train A travels from Newton to Derby, a distance of 310 miles. The train's average speed is 60 miles per hour.

Train B travels from Newton to Sudbury, a distance of 225 miles. This train's average speed is 50 miles per hour.

Which train reaches its destination *in less time*?

Show your work.

RS21)

It takes 35 minutes for Trey to walk from his home to school. Trey walks at an average rate of 3 miles per hour.

Which statement below best describes the distance from Trey's home to school?

A. Trey's home is about 1 mile from school.

B. Trey's home is between 1½ and 2 miles from school.

C. Trey's home is more than 2 miles from school.

D. There is not enough information to determine the distance between Trey's home and school.

Explain your choice.

RS22)

On Monday Francis walks 6 miles in 1½ hours.

If Francis walks at the same rate on Tuesday, how long should it take him to walk 7 miles?

Show your work.