Why Did the Skeleton Visit a Butcher Shop? *Key*
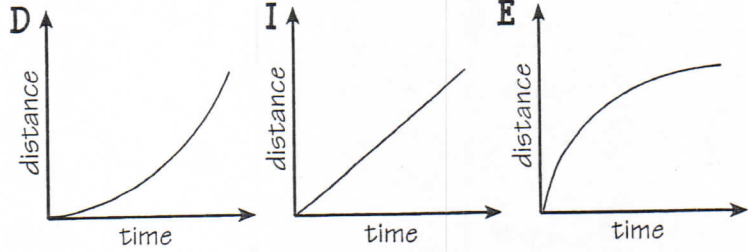
Choose the best graph for the situation. Write the letter of your choice in each box with the exercise number.

Suppose you are riding a bike.
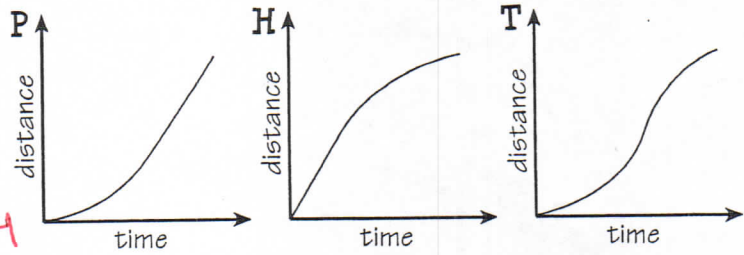Let x = time; y = distance traveled.

Which graph shows:
1. Speeding up (acceleration)? **D**
2. Slowing down (deceleration)? **E**
3. Constant speed? **I**

D, I, E graphs (distance vs time)

Suppose you are walking to school.
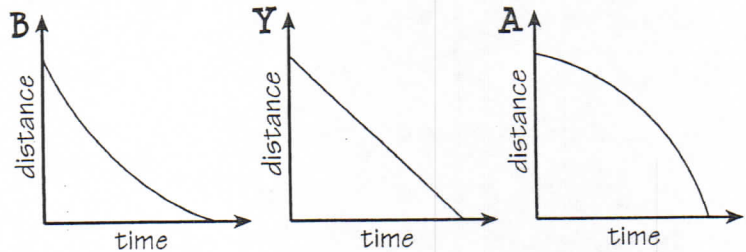Let x = time; y = distance traveled.

Which graph shows:
4. Speeding up, then slowing down? **T**
5. Speeding up, then constant speed? **P**
6. Constant speed, then slowing down? **H**

P, H, T graphs (distance vs time)

Suppose you are running home.
Let x = time; y = distance from home.

Which graph shows:
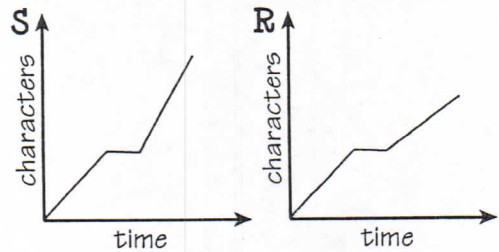7. Constant speed? **Y**
8. Speeding up as you get closer? **A**
9. Slowing down as you get closer? **B**

B, Y, A graphs (distance vs time)

Suppose you are writing a story on a computer.
Let x = time; y = number of characters typed.

Which graph shows:
10. Constant speed, then stop, then a faster constant speed? **S**
11. Constant speed, then stop, then a slower constant speed? **R**

S, R graphs (characters vs time)

4	6	2	7	6	8	1	10	5	8	11	2	11	3	9	10
T	H	E	Y	H	A	D	S	P	A	R	E	R	I	B	S

The Hurdles Race

This sketch graph shows what happened when three athletes, Flash, Krash, and Dash, competed in a 100-meter hurdles race.

a. How do you know that all three athletes were accelerating at the beginning of the race?

b. Which athlete slowed down near the end of the race? How do you know? **Dash**

c. Which athlete maintained a constant speed during the last half of the race? How do you know? **Flash**

d. Why might part of the graph for Krash be horizontal?

e. Who won the race? *Just for Fun:* Try calling the race. **Flash**

Graph: distance (m) vs time (s), 100 mark; curves labeled Flash, Krash, Dash.