situation graphs

agenda

Warm-Up
Notes p. 31
Matching Cards
Assignment: #1-9

reminders
Test Thursday
Read-It Friday

essential question:
How can I interpret real-world graphs?

warm-up tuesday

1. The length of a rectangle is 4 cm less than twice its width. If the perimeter of the rectangle is 100 cm, find the length.

$L = 2w - 4$

$2(2w-4) + 2w = 100$

$4w - 8 + 2w = 100$

$6w - 8 + 8 = 108$

$\frac{6w}{6} = \frac{108}{6}$

$w = 18$ cm

$2w-4$

$2(18)-4$

$36-4$

32 cm

2. **Which expression is equivalent to** $3(x-4)-5(x-2)$**?**

A. $-2x-22$
B. $-2x-6$
C. $-2x-14$
D. $-2x-2$

$3x-12-5x+10$

$-12+10=-2$

@mskmath

Algebra I - Unit 2: Topic 2 – Using the CBR

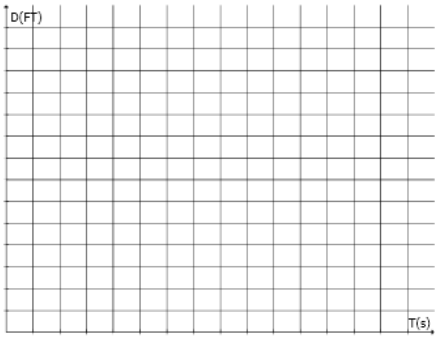
Practice – Using the CBR **No Textbook Correlation**

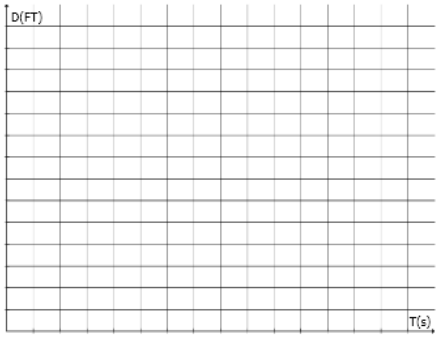
Name _____ Date _____ Per _____

Draw a graph that could be produced from the following scenarios.

1. Max walked quickly towards the CBR for 3 seconds, then stood still for 5 seconds, then backed away from the CBR slowly for 7 seconds.

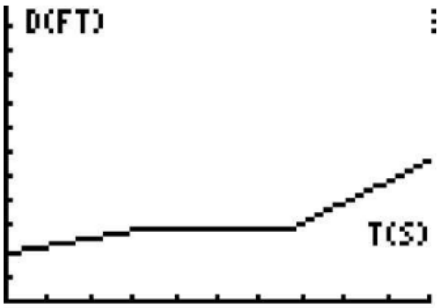
2. Adarria walked slowly away from the CBR for 9 seconds, then proceeded to walk quickly away from the CBR for 4 seconds, then stood still until the CBR stopped.



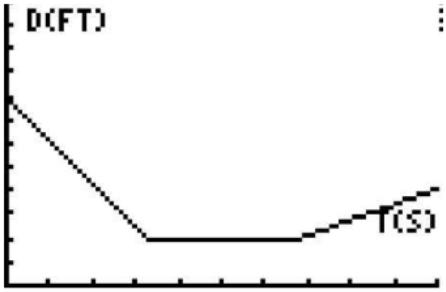


Write a scenario that would produce the following graph.

3.

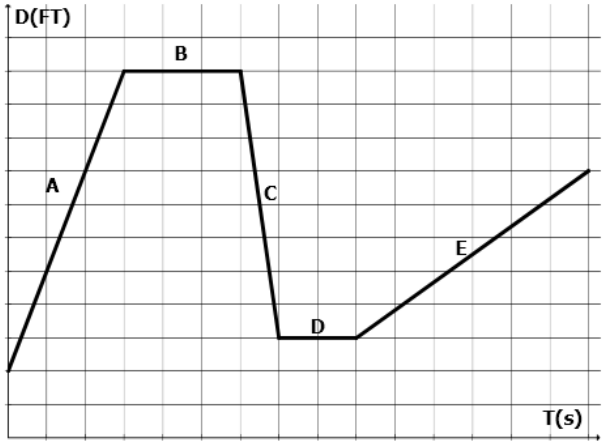


4.



Algebra I - Unit 2: Topic 2 – Using the CBR

Use the graph below to answer the following questions.



5. Which part of the graph shows someone walking the fastest? _____

6. Which part of the graph shows someone standing still the longest? _____

7. Which part of the graph shows someone walking the slowest? _____

PAY ATTENTION to axes labels

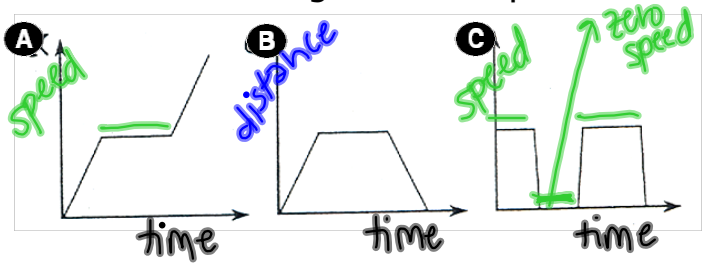
situation graphs

p. 31

essential question: How can I interpret real-world graphs?

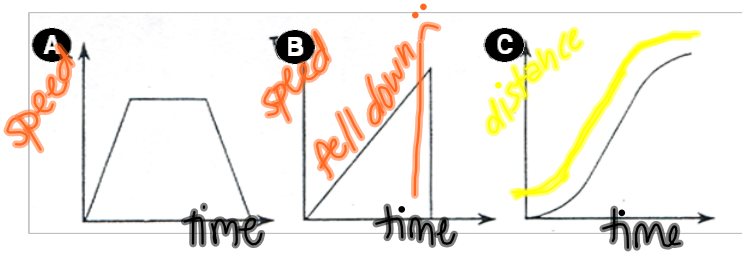
Choose the best graph for the given situation.
Label the axes of the chosen graph with the variables given in the parentheses.

1. Katie walked from home to the library, did some homework, then walked back. **(distance from home / time)** B
2. Katie walked from home to the library, did some homework, then walked back. **(speed / time)** C



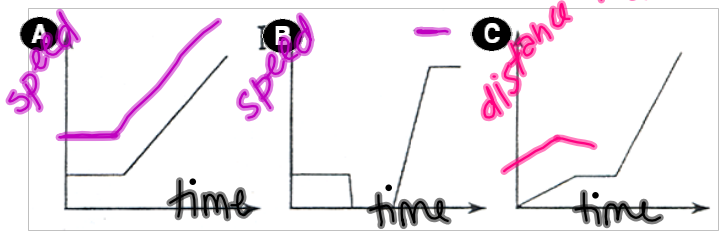
changing speed → curved

3. When jogging, Carrie starts slowly, builds up to a comfortable speed, then slows down near the end. **(distance / time)** C
4. When jogging, Carrie starts slowly, builds up to a comfortable speed, then slows down near the end. **(speed / time)** A



steeper → faster

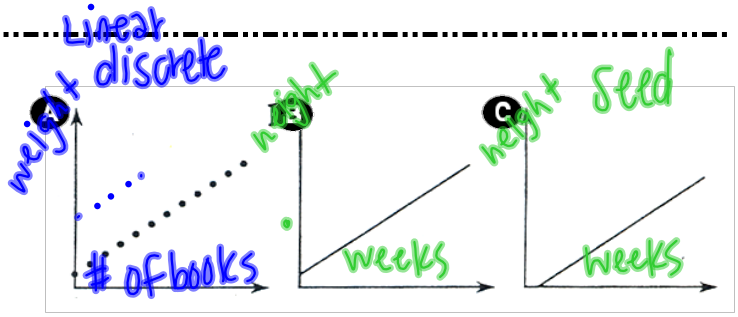
5. Mr. Sanchez walked to the subway station, waited a few minutes, then got on a train. **(distance / time)** C
6. Mr. Sanchez walked to the subway station, waited a few minutes, then got on a train. **(speed / time)** B



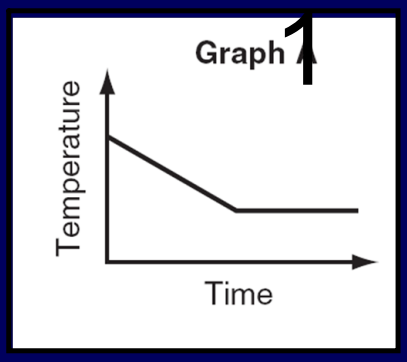
half of book?

Linear discrete

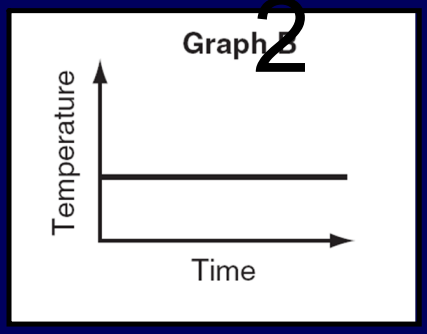
7. Tom carried a box of school yearbooks from the office to his classroom. **(weight of box / number of books in box)** A
8. Every week the plant in our office is taller than the week before. **(height of plant / number of weeks)** B



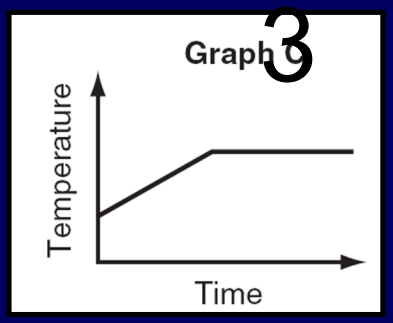
Choose the graph that best represents each situation.



1



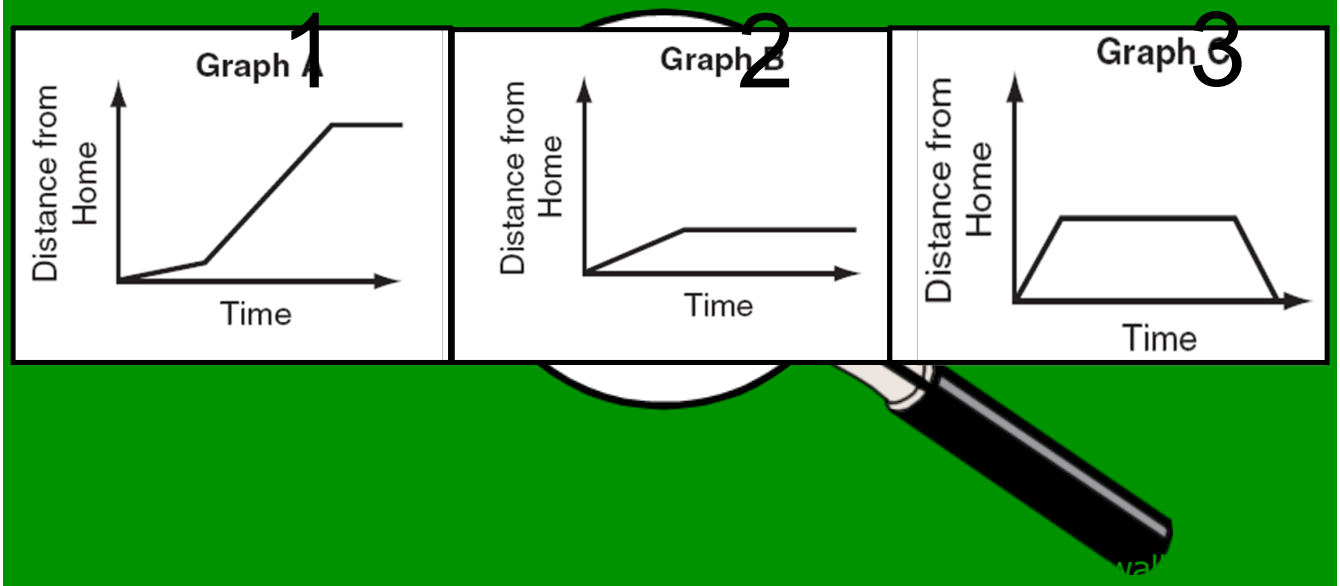
2



3

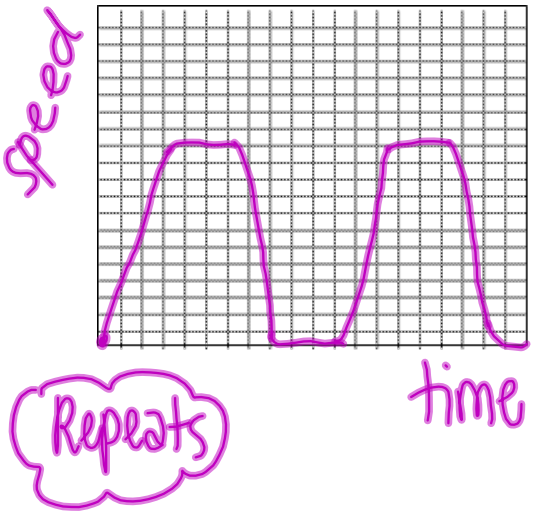
The temperature of the water in a glass cooled down steadily with the addition of ice, then remained constant when all the ice had melted.

Choose the graph that best represents each situation.

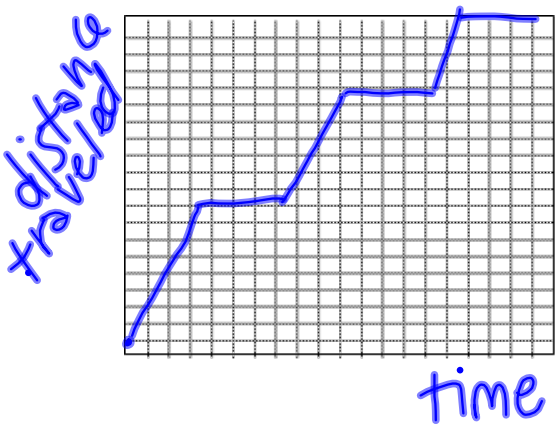


9. Carlos lives in a large city and travels to school on a local bus that stops at every block to let passengers on and off.

Graph time on the horizontal axis and the speed on of the bus on the vertical axis.



Graph time on the horizontal axis and the distance Carlos has traveled from home on the vertical axis.



situation graphs

Match each situation with the appropriate graph. Make sure you can justify your answers!

NOT #2, 8, 17

Algebra I - Unit 2: Topic 2 – Situation Graphs

Practice – Situation Graphs pp 230-235

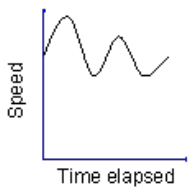
Name _____ Date _____ Period _____

Indicate which graph matches the statement.

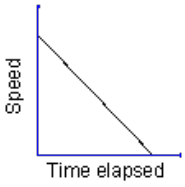
1. A train pulls into a station and lets off passengers.

A.

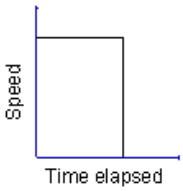
B.



C.

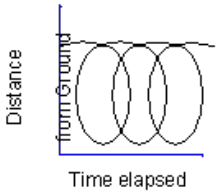


D.

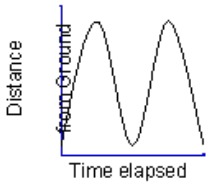


2. A man takes a ride on a Ferris wheel.

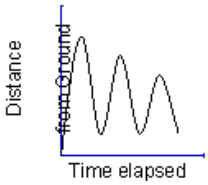
A.



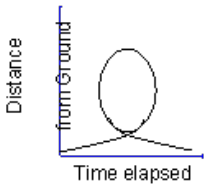
B.



C.

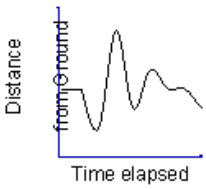


D.



4. A child swings on a swing.

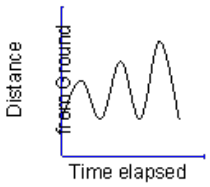
A.



B.

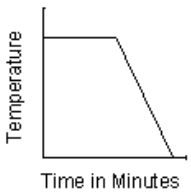
C.

D.



5. Water is boiled and then allowed to sit at room temperature.

A.



B.

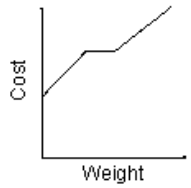
C.

D.

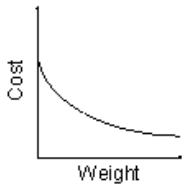
Algebra I - Unit 2: Topic 2 – Situation Graphs

6. Cost of a bag of potatoes depends upon its weight.

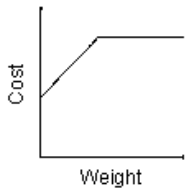
A.



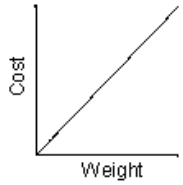
B.



C.

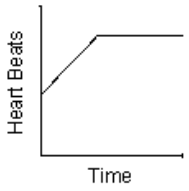


D.

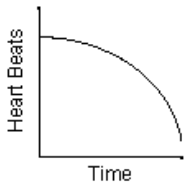


7. The heart rate of a person depends on how long he has been exercising.

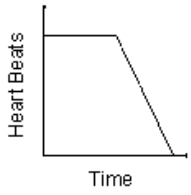
A.



B.



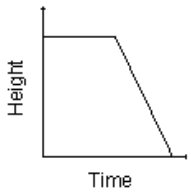
C.



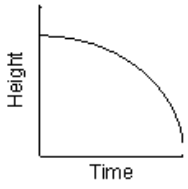
D.

8. A baseball is hit. Its height *h* is a function of time *t*.

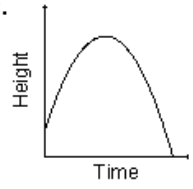
A.



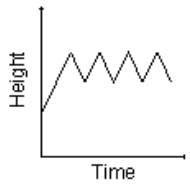
B.



C.

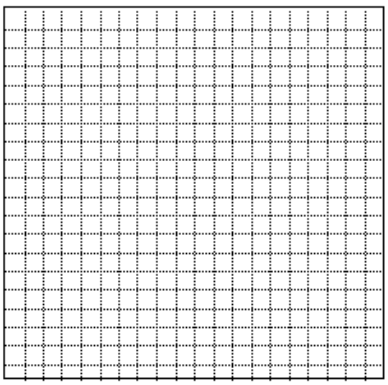


D.



Draw a graph that matches each situation. Give a label to each axis.

9. Sara walks from her home to the store. Halfway to the store, she realizes that she forgot to bring money, so she turns around, returns home, gets her money, and then walks all the way to the store. Graph time on the horizontal axis and distance from home on the vertical axis.



situation graphs

1. C
2. B
4. D
5. B
6. D
7. A
8. C

9.