



Math in Focus: Singapore Math National Institute
July 16-17 2013 | Philadelphia PA

*The CCSS Mathematical
Practices & Math in Focus*

8 practices

Habits of Mind Of a Productive Mathematical Thinker	Reasoning and Explaining MP.2 Reason abstractly and quantitatively MP.3 Construct viable arguments and critique the <u>reasoning</u> of others.
	Modeling Using Tools MP.4 Model with mathematics MP.5 Use appropriate tools strategically
	Seeing Structure and Generalizing <u>MP.7</u> Look for and make sense of structure. <u>MP.8</u> Look for and express regularity in repeated <u>reasoning</u> .
MP.1 Make sense of <u>problems</u> and <u>persevere</u> in solving them.	
MP.6 Attend to Precision	



Are the δ created equally?

8 practices

Reasoning and explaining

Course 3 – Functions

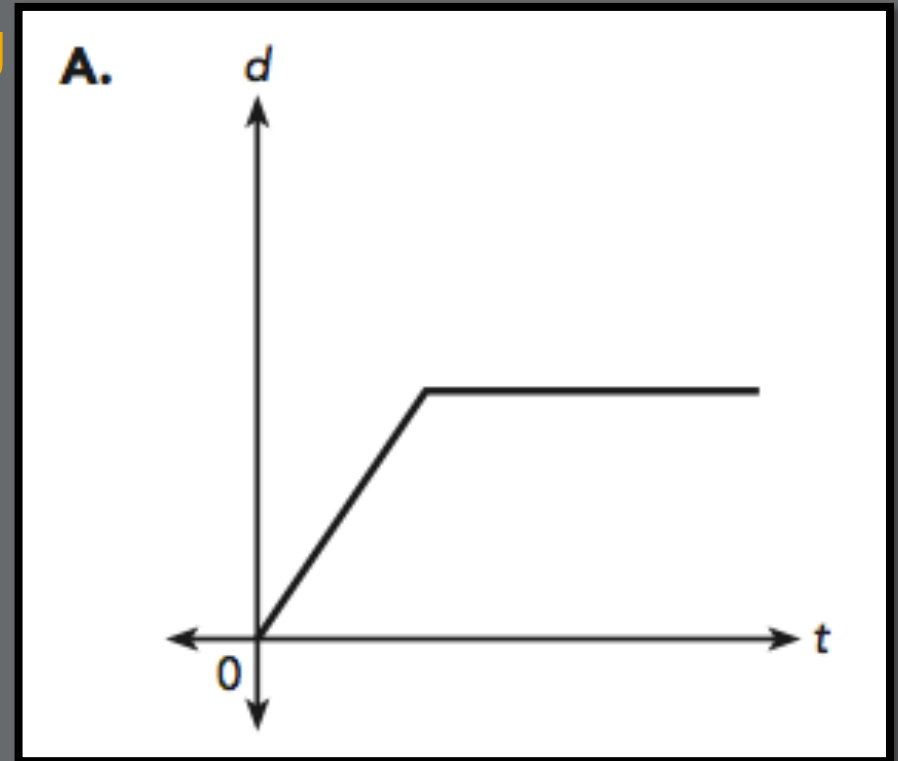
8 practices

Reasoning and explaining

- Step 1** List the type of slope (positive, negative, or zero) of each graph or section of the graph.
- Step 2** Give a short description of the situation that the graph could represent in terms of the person traveling to and away from his home.

8 practices

Reasoning and explaining



8 practices

Reasoning and explaining

Graph	Type of slope(s)	Description
A	Positive, zero	The person travels away from home, then stays in one place.
B		
C		
D		
E		
F		

8 practices

modeling using math

Course 2 – Expressions and Equations

8 practices

modeling using math

A factory made 845 pairs of shoes in January. These shoes were sent to three shoe stores and one outlet mall. The number of pairs of shoes sent to each store was four times the number sent to the outlet mall. How many pairs of shoes were sent to the outlet mall in January?

8 practices

modeling using math

The cost of seeing a weekday show is $\frac{2}{3}$ the cost of a weekend show. In one month, Andy spent \$42.50 for 4 weekday shows and 3 weekend shows. Find the price of a weekday show and the price of a weekend show.

8 practices

seeing structure and generalizing

Course 1 – Positive
Numbers on a Number Line

8 practices

seeing structure and generalizing



Find two consecutive numbers whose squares differ by 17.

8 practices

seeing structure and generalizing

$$340^2 - 339^2 =$$

8 practices

seeing structure and generalizing

8 *Math Journal* Find the value of each expression. Then describe any patterns you see.

a) $2^2 - 1^2$

b) $3^2 - 2^2$

c) $4^2 - 3^2$

d) $5^2 - 4^2$

9 Find two consecutive numbers whose squares differ by 17.

Teachers who foster the practices_____.

Ensure that every child has a mathematical voice.

Know when to slow down and what to slow down for.

Ask the right questions.



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Thank you!

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