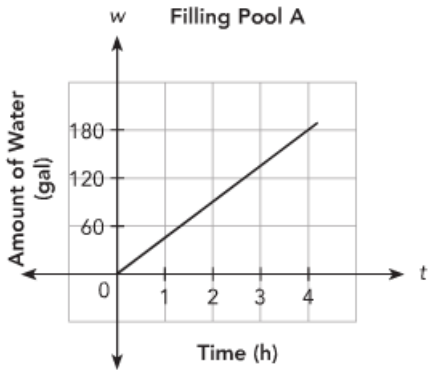
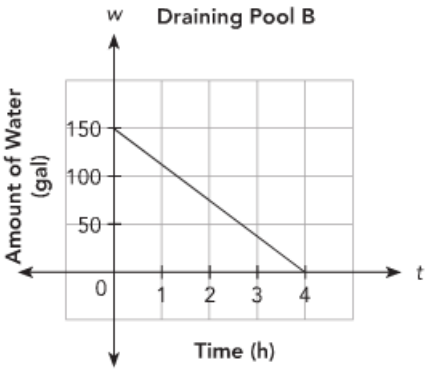
P.S. #4.1 - Constant Rates

Name: _____ Class: _____

1.) The graph represents the amount of water, *w*, in pool A over time, *t*, and the amount of water, *w*, left in pool B over time *t*.



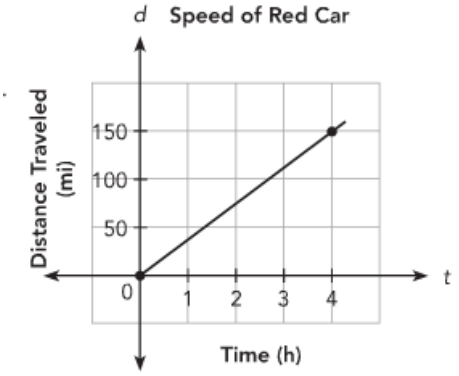


a.) What is pool A's rate of change?

b.) What is pool B's rate of change?

2.) A red car and a blue car leave the same garage at the same time. Each drive drives at a steady rate. The graph represents the distance, *d* miles, traveled by the red car over time, *t* hours. The blue car traveled 140 miles over the same length of time.

a.) At what speed is the red car traveling?



b.) At what speed is the blue car traveling?

c.) Suppose you graph a line showing the distance traveled by the blue car after *t* hours on the same coordinate plane as the one showing the distance traveled by the red car after *t* hours. Would the blue car's graph be steeper or gentler than the red car's graph?

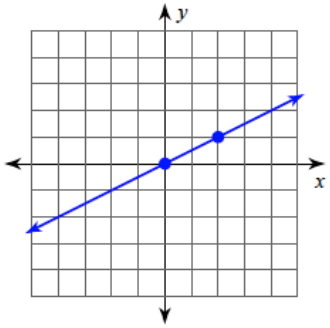
For 3 – 4, isolate y.

3.) $5x + 4y = 20$

4.) $x - 2y = 6$

For 5 – 12, find the rate of change/slope in simplest form.

5.)



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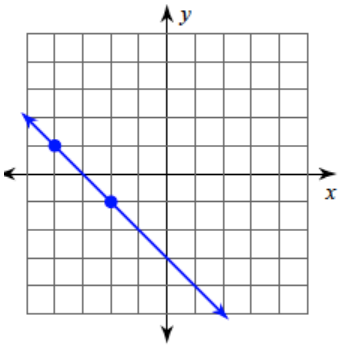

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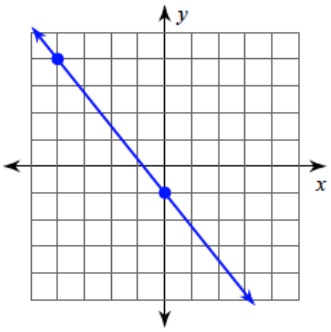

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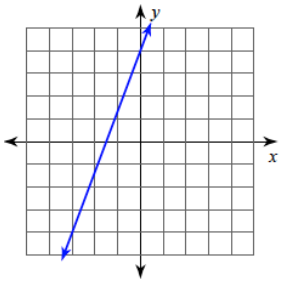

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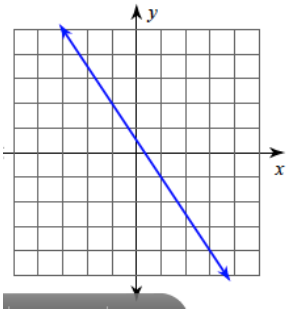

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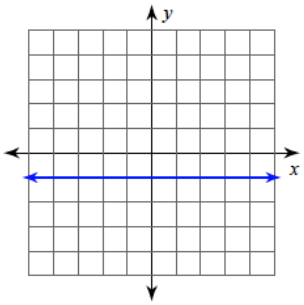

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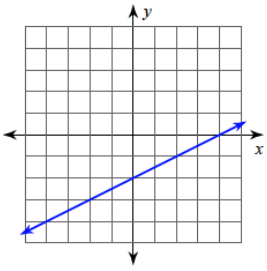

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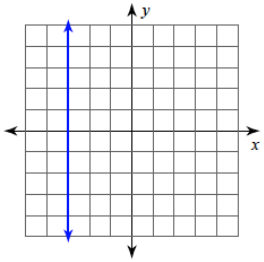

13.) Find three consecutive even integers such that four times the third minus three times the second is equal to 10 less than twice the first.