

Algebra 1 Bellwork Tuesday, March 1, 2016

1. Your cabin on a river is 16.8 miles from your friends cabin on the same river. One day you paddle upstream (against the current) to you friends cabin and it takes 3.5 hours. The next day you return to your cabin downstream (with the current) and it takes 2.1 hours. Write and solve a system of equations to find the speed you paddle your boat and the speed of the current.

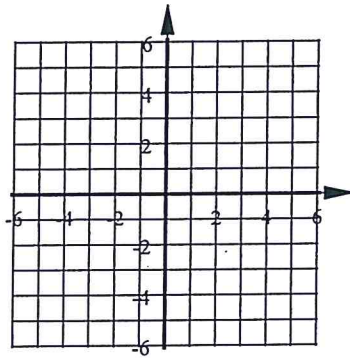
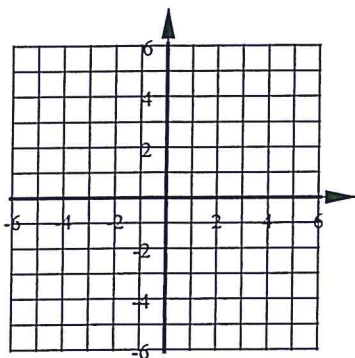
Paddle speed = _____

Current speed = _____

Graph each system of inequalities. Shade the solution region a different color than any other shading.

2. $y < -3x + 2$
 $y \geq 2x - 1$

3. $y \leq 4$
 $2x - 6y < -12$



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Answers

1. Your cabin on a river is 16.8 miles from your friends cabin on the same river. One day you paddle upstream (against the current) to you friends cabin and it takes 3.5 hours. The next day you return to your cabin downstream (with the current) and it takes 2.1 hours. Write and solve a system of equations to find the speed you paddle your boat and the speed of the current.

upstream EQ: $16.8 = (p - c) 3.5 \rightarrow 4.8 = p - c$ P Paddle speed = 6.4 mph

downstream EQ: $16.8 = (p + c) 2.1 \rightarrow 8 = p + c$ C Current speed = 1.6 mph

$12.8 = 2p$

$p = 6.4$

$c = 8 - 6.4 = 1.6$

Graph each system of inequalities. Shade the solution region a different color than any other shading.

2. $y < -3x + 2$
 $y \geq 2x - 1$

3. $y \leq 4$
 $2x - 6y < -12$

x-int = -6
y-int = 2

TEST (0,0)

$0 - 0 < -12$

$0 < -12$

FALSE,

Shade other side

