

Ch. 2 Homework

Phy 101
①

Ch. 2 Qs 1, 3-5, 7, 9
Probs. 4, 5

Questions

① Scalar (size, magnitude) Vector (size & direction)

a. 100 yd dash

c. \$75 dress

d. 4 days

e. 100 degrees

f. 1996 AD

g. 12:45 PM

j. cubic yd of cement

k. 20N

m. 20 kg

n. 30 rev/min

b. 20,000 leagues under the sea

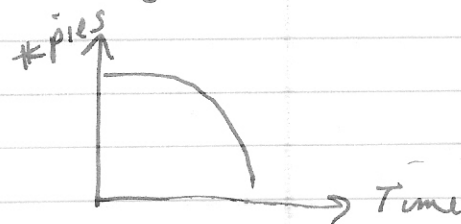
g. 1 mile northeast

h. lower 40 acres

l. 40 m/s west

③ Number of pies (vert) vs. Time (horiz)

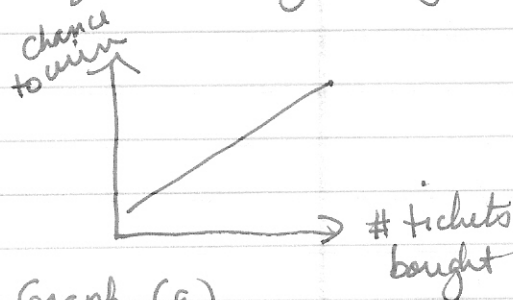
At first you would eat more pies, and then you would eat fewer until you couldn't eat anymore.



Graph (b)

④ Chance to win the lottery vs. # of tickets you buy

Your chances to win would increase w/ number of tickets you buy, AS LONG AS no one else bought more tickets.

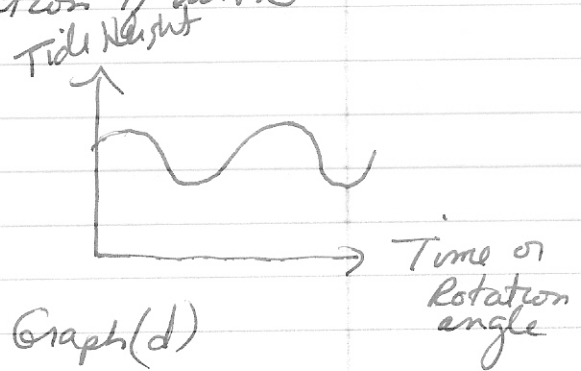


Graph (a)

Questions (cont.)

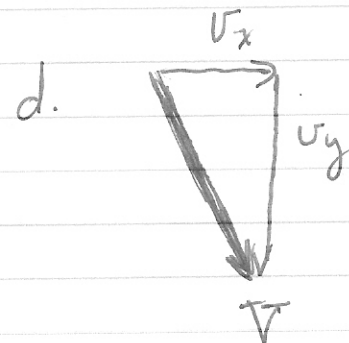
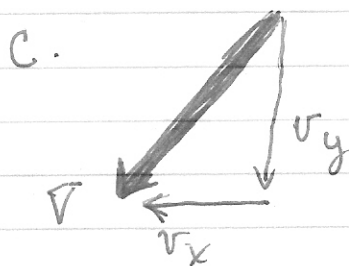
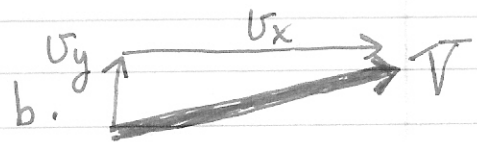
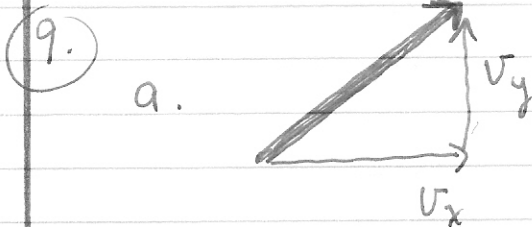
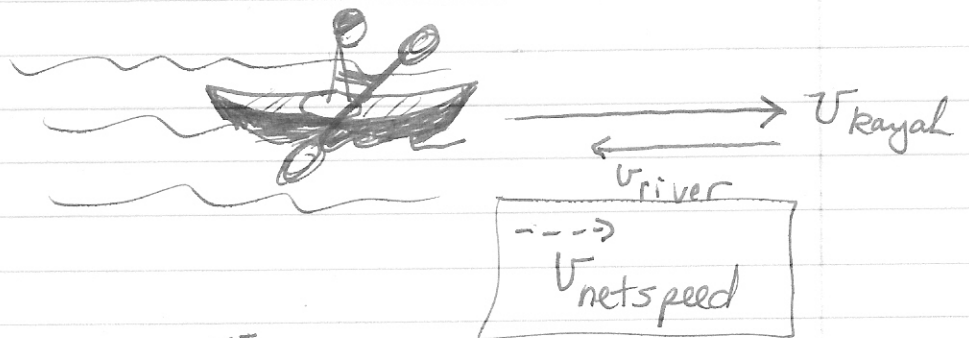
5. The water height vs. rotation of earth

As the earth rotates toward & away from the moon, the tides rise & fall repetitively.



7. $v_{kayak} = 3 \text{ km/s}$
 $v_{river} = 2 \text{ km/s}$

she paddles upstream -
or against the flow of
the water.



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Phy 101
③

<u>Problems</u>	<u>#</u>	<u>scientific notation</u>
④ a)	1,000,000	1×10^6
b)	$\frac{1}{1,000,000} = 0.000001$	1×10^{-6}
c)	2.5	2.5×10^0
d)	$\frac{1}{2.5} = 0.4$	4×10^{-1}

<u>scientific notation</u>	<u>#</u>
⑤ a) 7×10^4	70,000
b) 7×10^{-4}	0.0007
c) 6.41×10^6	6,410,000
d) 6.41×10^{-6}	0.00000641