

**PHY131H1F** “Introduction to Physics I”

Answers to suggested End of Chapter Conceptual Questions in Knight Physics for Scientists and Engineers 3<sup>rd</sup> edition. I do not give the explanations. These are just meant to reassure you once you have reasoned through the question yourself. *Please try these first before referring to the answers!* If you notice any mistakes in these answers please contact me and I will fix it. - - Jason Harlow Sep. 29, 2012

1.1 (a) 3 (b) 2 (c) 4 (d) 3

1.7 position is negative, velocity is positive, acceleration is positive

2.8 (a) Yes, at 3 and 6 (b) Yes, between 4 and 5

2.10 Yes, if it is slowing down

2.12 (a) equal to  $g$  (b) equal to  $g$  (c) equal to  $g$

4.4 (a) no (b) yes, at the top of the curved path

4.8 Ball 1 was thrown at a faster speed.

4.14 (a)  $\omega+$ ,  $\alpha+$  (b)  $\omega-$ ,  $\alpha+$  (c)  $\omega+$ ,  $\alpha-$  (d)  $\omega-$ ,  $\alpha-$

5.5 gravity (a) long range (b) Earth [also, if you don't neglect air resistance, there is drag (a) contact (b) air]

5.7 (a)  $20 \text{ m/s}^2$  (b)  $5 \text{ m/s}^2$  (c)  $10 \text{ m/s}^2$

5.15 C

6.2 no

6.10 correct amount

6.16 yes

7.5 equal to

7.6 larger than

7.7 equal to

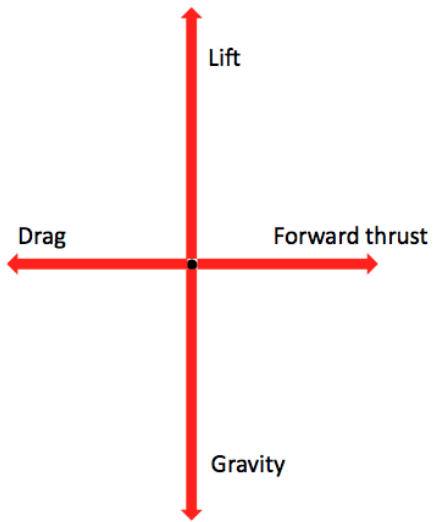
7.15 greater than

8.4 greater than

8.6 neither

8.7 (a) zero

8.7 (b)



8.7 (c)

