Reflection and Self-Assessment

Part 1: Circle the statement that best describes how you completed the practice:

- I answered all questions without using the online solutions. I checked my answers against the
 key at the back of the practice and was able to determine my mistakes and correct them
 without referring to the online solutions.
- I answered most questions correctly without using the online solutions. I used the online solutions to help me with some questions and was able, with help from the online solutions, to understand every question and answer them correctly.
- I used the online solutions to help me with most of the questions. I was able, with help from the online solutions, to understand each question and answer them correctly.
- Even using the online solutions, I was not able to fully understand the solution to some problems. The questions I had trouble with were:

• I did not attempt all the questions on the practice.

Part 2: Circle the statement that best describes your confidence in answering questions of this type in the future.

- I am confident I can answer nearly any question of this type correctly without using notes or other assistance.
- I am confident I can answer **MOST** questions of this type correctly without using notes or other assistance.
- I am NOT confident I can answer most questions of this type correctly without using notes or other assistance.

- 1. A ball is shot straight into the air from the ground, it reaches a maximum height of 15m.
 - a. What is the velocity of the ball at its highest point?
 - b. Determine the initial velocity they threw the ball upwards with.

c. Determine the total time the ball spent in the air.

d. Determine the two different velocities when the ball was 8.0 m above where it was thrown.

e. Determine the two different times when the ball was 8.0 m above where it was thrown.

- 2. A ball is thrown upwards with a velocity of 5.6 m/s, and it is caught at the same height it was thrown with.
 - a. What is the velocity of the ball when it is caught?

b. What is the velocity of the ball when it is at its highest point?

c. What is height of the ball at its highest point?

d. How long in total was the ball be in the air?

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Free	Fall	l Pra	ctice

Name:		

3. A helicopter is ascending vertically with a velocity of 8.0 m/s at a height of 120 m when a package is dropped out of the door. How much time passes before the package hits the ground?

4. A stone is dropped off a cliff. 2.0 s later a second stone is dropped off the same cliff. How far apart are the two stones when the first stone reaches a velocity of -40.0 m/s?

- 5. A basketball is thrown downwards at 20.0 m/s off a 100.0 m cliff. Find...
 - a. the velocity at which it hits the ground.

b. the time between throw and impact.

c. the displacement when it is traveling at -34.7 m/s.

Free Fall Practice	Name:

Answer Key						
1a) 0	1b) 17 m/s	1c) 3.5 sec	1d) 12 m/s and -12 m/s	1e) 0.55 and 2.9 sec.		
2a) -5.6 m/s	2b) 0	2c) 1.6 m	2d) 1.1 sec	3) 5.8 sec		
4) 6.0 × 10 ¹ m	5a) -49 m/s	5b) 2.9 sec	5c) -41 m			