

Name _____

Circle your answers, and label them with units. Ignore air friction and use the convention that **down is negative**. $g = 9.8 \text{ m/s}^2$

When you have finished this, go to the website and check your answers. If you got a problem wrong, cross it off on the front, and do it correctly on the back.

1-2: An air rocket is launched vertically upward at a velocity of 28.0 m/s.

1. What total time will it be in the air?

2. What is the greatest height it reaches?

3-4: A rock falls from rest off a cliff that is 24.0 m tall

3. What time does it take to reach the ground?

4. What is its velocity of impact? (careful of the sign)

5. An air rocket leaves the ground at 34.0 m/s going straight up and strikes the ceiling of the gym going 26.0 m/s. How tall is the ceiling in the gym?