Physics Net Force and Acceleration Practice

Name _____ Date ____

1) For each of the five situations detailed in Table 1, draw a free body diagram, and then calculate the missing

data in the table						
data in the table.	a (m/s2)	m (kg)	Net F (N)	F2 (N)	F1 (N)	TABLE 1
You must show y formulas and the substituted value		6.00		-30.0	12.0	1
	-0.500			-40.0	10.0	2
Use another shee paper to draw dia and do calculatio which do not fit b	0.0300	45.0		20.0		3
		1200.0	238		-700	4
	-38.0	0.25			80.0	5

You must show your formulas and the substituted values.

Use another sheet of paper to draw diagrams and do calculations which do not fit below.

2) A 64-kg skydiver leaps out of an airplane, and accelerates to 83 m/s, at which point air resistance keeps her from accelerating any further.

- a) What is the mass of the skydiver?
- b) What is the weight of the skydiver?
- c) What is the net force on the skydiver when she is traveling at 83 m/s?
- d) How do you know the answer to the previous question?
- e) Draw a free body diagram for the instant she opens the parachute, which at that speed produces 1820 N of air resistance.
- f) Calculate the net force on, and the acceleration of, the skydiver the instant the parachute opens.