EX_2.1

1.

0N

2.

a. False

b. True

c. True

3.

1 * 9.81 = 9.81N

4.

5 * 9.81 = 49.05N

5.

70 * 9.81 = 686.70N

EX_2.2

1.

The Net Force acting on the diagram is 0N.

2.

The Net Force acting on the diagram is 10M towards Left.

3.

The Net Force acting on the diagram is 25N upwards.

4.

The magnitude of the unknown force is 5N.

5.

The magnitude of the downward force is 350N and the magnitude of force towards right is…..
(IMPOSSIBLE…. CAN U HAVE NEGATIVE FORCE?)

6.

Upward Force:	10000000000N
Downward Force:	10000000000N
Right Force:	300N

EX_2.3

1.

Accelerate = 12 / 3 = 4 ms-2

2.

Accelerate = 12 / 6 = 2 ms-2

3.

15 / 5 = 3Kg

4.

F = M x A
3F = 2M x oldA
3F/2M = oldA
3/2 x F/M = oldA
F/M = 3/2 x oldA
newA = 1.5 x oldA = 1.5 x 2 = 3

New Accelerate is 1.5x2 = 3ms-2

EX_2.4

1.

The car, it has both greater mass and acceleration

2.

It will be the a smaller acceleration on the gun compare to the bullet cause the larger mass

3.

The pin will apply the same force back to the opposite direction towards the ball.