

(AP)

- FRONT ROW
- QS ON HW?
- HW QUIZ @ ~ 9:00

(IB)

- WORK ON LAB REPORT
- DUE TOMORROW
- EXAMPLES ON BOOK TABLE
- TURN IN RETAKES

5.18

NO FRICTION

FBD

5.4 kg

5.4 N

F

7.3

F

EQUAL IN MAG & OPP IN DIR BY 3RD LAW

MASS OF BOTH BOXES

FIND a of SYSTEM (BOTH BOXES)

$$F = ma$$

$$a = \frac{F}{m} = \frac{5.4 \text{ N}}{12.7 \text{ kg}}$$

$$a = 0.425 \text{ m/s}^2$$

BIGGER BOX

$$F = ma$$

$$= (7.3 \text{ kg})(0.425 \text{ m/s}^2)$$

$$F = 3.1 \text{ N}$$

ELEVATOR

5.5GIVEN : $v = 11 \text{ m/s}$ $m = 95 \text{ kg}$ $x = 26 \text{ m}$ $v_0 = 0$ FIND a FROM EQUATIONSTHEN FIND F FROM 2ND LAW

$$v^2 = v_0^2 + 2ax$$

$$F = ma$$
