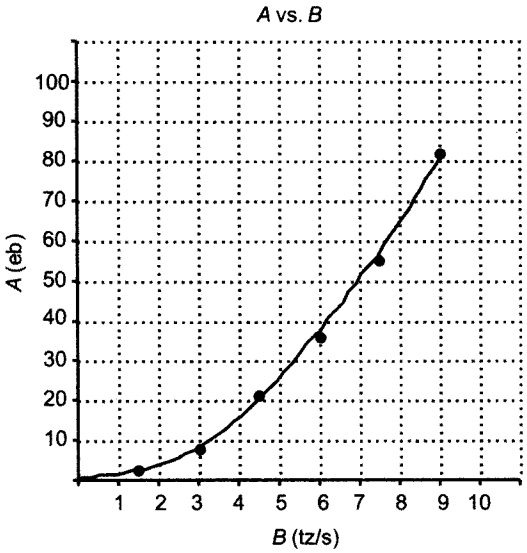
c) $\text{slope} = \dfrac{\text{rise}}{\text{run}} = \dfrac{y_2 - y_1}{x_2 - x_1}$

$= \dfrac{23 \text{ eb} - 0}{275 \text{ s/tz} - 0}$

$= 8.36 \times 10^{-2} \text{ eb•tz/s}$

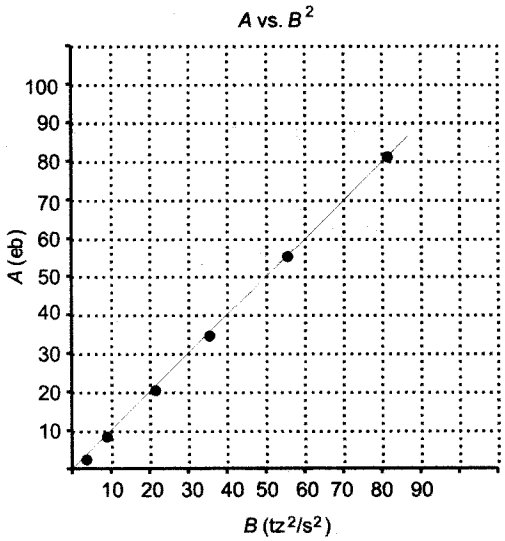
d) $A \Delta \dfrac{1}{B}$ or $A = \dfrac{k}{B}$

3. a)



b)

B (tz/s)	A (eb)	B^2 (tz^2/s^2)
1.5	2.25	2.25
3.0	9.00	9.00
4.5	20.25	20.25
6.0	36.00	36.00
7.5	56.25	56.25
9.0	81.00	81.00



c) $\text{slope} = \dfrac{\text{rise}}{\text{run}} = \dfrac{y_2 - y_1}{x_2 - x_1}$

$= \dfrac{70 \text{ eb} - 0}{70 \text{ tz}^2/\text{s}^2 - 0}$

$= 1.00 \text{ eb•s}^2/\text{tz}^2$

d) $A \Delta B^2$ or $A = kB^2$

KINEMATICS

Lesson 1–Scalar and Vector Quantities

1. a) $d = 275 \text{ m} + 425 \text{ m}$

$= 700 \text{ m}$

b) $d = 275 \text{ m} + (-425 \text{ m})$

$= -150 \text{ m}$ or 150 m west

2. a) $d = 2(115 \text{ m}) + 2(125 \text{ m})$

$= 480 \text{ m}$

b) Vertical direction

$d = 125 \text{ m} + (-125 \text{ m})$

$= 0 \text{ m}$

Horizontal direction

$d = 115 \text{ m} + (-115 \text{ m})$

$= 0 \text{ m}$

$\therefore d = 0$

3 a) $v = \dfrac{(11\text{m} + 25\text{m})}{52\text{s}}$

$= 0.69 \text{ m/s}$

