

**SANGAM SKM COLLEGE NADI**

**YEAR 12**

**PHYSICS**

**WORKSHEET 1**

**ANSWERS**

1.  $v_f = v_i + at$   
 $0 = 30 + a(3)$   
 $a = -10\text{ms}^{-2}$

2.  $v_f^2 = v_i^2 + 2as$   
 $v_f^2 = 0^2 + 2(10)(321)$   
 $v_f = 80.12\text{ms}^{-1}$

3.  $s = \frac{1}{2}at^2$

$8937 = \frac{1}{2}(10)t^2$

$t = 42.28\text{s}$

$R = v_x t$

$R = (67)(42.28)$

$R = 2832.60\text{m}$

**Sangam SKM College – Nadi**

**Solution: Week 1**

**Year 12**

**Physics**

WEEK 1 ANSWERS

a.  $F = kx$

$$4.6 = k(0.079)$$

$$k = 58.22\text{Nm}^{-1}$$

b.  $E_p = \frac{1}{2}kx^2$

$$= \frac{1}{2}(58.22)(0.079)^2$$

$$= 0.18\text{J}$$

c.  $F = kx$

$$7.5 = (58.22)x$$

$$x = 0.13\text{m}$$