

MAY

18

139/227 Week 20
WednesdayMei
JumatanoMei
WoensdagMayo
MiércolesMai
MercrediMaggio
MercoledìMai
MittwochMei
Alhamis

$$u = 7.9 \text{ m/s}$$

$$\text{angle} = 23.0^\circ$$

s. as later

distance in horizontal direction

$$x = u \cos \theta$$

$$= 7.9 \cos 23.0^\circ$$

equation of vertical direction

$$s = ut + \frac{1}{2}gt^2 = 36.4 \text{ m}$$

$$x = 7.50 \cos 18.6 (2.55)$$

$$x = 18.1 \text{ m}$$

$$s = ut + \frac{1}{2}gt^2$$

$$= u \sin \theta t + \frac{1}{2}gt^2$$

$$7.5 \sin 23 (5.0) + \frac{1}{2}(9.81)(5.0)^2$$

$$15.43 + 122.63$$

$$= 138.06$$

$$7.5 \sin 18.6 (2.55) + \frac{1}{2}(9.8)(2.55)^2$$

$$6.1 + 12.5 = 18.6$$

$$= 38$$

MAY							2016
W	M	T	W	T	F	S	S
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	

$$11.5 = 7.5 \sin 18.6t + \frac{1}{2} (9.8) t^2$$

$$2.39t +$$

$$11.5 = 2.3t + 4.9t^2$$

$$4.9t^2 + 2.3t - 11.5 = 0$$

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$\frac{-3.1 \pm \sqrt{3.1^2 - 4(4.9)(-11.5)}}{2(4.9)}$$

$$\frac{-3.1 \pm 14.34}{9.8}$$

$$-4.9 \pm$$

$$\frac{-23 \pm \sqrt{2.3^2 - 4(4.9)(-11.5)}}{9.8}$$

$$9.8$$

$$t = 1.325$$

MAY
20

141/225 Week 20
Friday

Mei
Ijuma

Mei
Vrijdag

Mayo
Viernes

Mai
Vendredi

Maggio
Venerdi

Mai
Freitag

$$v^2 = u^2 + 2as$$

$$\text{initial velocity} = 44.5 \sin 33 = 24.24 \text{ m/s}$$

$$y - y_0 = u_y t + \frac{1}{2} (a_y) t^2$$

$$5.8 - 0 = 24.24 t - 0.5 (9.8) (t^2)$$

$$4.9 t^2 - 24.24 t + 5.8 = 0$$

$$\frac{24.24 \pm \sqrt{24.24^2 - 4(4.9)5.8}}{2(4.9)}$$

$$8.98$$

$$4.69 \text{ s}$$

$$\text{initial velocity} = 30.6 \sin 40 = 19.67 \text{ m/s}$$

$$6.0 - 0 = 19.67 t - 0.5 (9.8) t^2$$

$$6 = 19.67 t - 4.9 t^2$$

$$4.9 t^2 - 19.67 t + 6.0$$

$$= \frac{19.67 \pm \sqrt{19.67^2 - 4(4.9)(6)}}{2(4.9)}$$

$$3.086$$

$$v^2 = u^2 + 2as$$

$$0 = 19.67^2 + 2(9.8)(s)$$

$$v = 16.41 \text{ m/s}$$

$$s = 19.72$$

$$13.72 \text{ m}$$

MAY							2015
W	M	T	W	T	F	S	S
17	30	31					1
18	2	3	4	5	6	7	8
19	9	10	11	12	13	14	15
20	16	17	18	19	20	21	22
21	23	24	25	26	27	28	29

$$v = 2.90 \text{ m/s} - 2.10 \text{ m/s} \checkmark$$

$$\text{horizontal } v = 4.40 \text{ m/s} \rightarrow$$

$$\text{bottle} = 4.5 \text{ m}$$

$$v = 2.90 \text{ m/s}$$

$$s = 9.0 \text{ m/s}$$

$$\text{hor} \Rightarrow 4.40$$

$$s \cdot \text{bottle} = 6.40 \text{ m}$$

$$v_g = \sqrt{v_b^2 + v_c^2}$$

$$\sqrt{2.1^2 + 4.4^2} = 4.88$$

$$4.875 \text{ m/s}$$

$$\sqrt{2.9^2 + 5.9^2}$$

$$v_2^2 = v_1^2 + 2ad$$

$$0 = v_1^2 + 2ad$$

$$\sin x = 2.9$$

$$0.574$$

$$d = \frac{-v_1^2}{2a} = \frac{-2.9^2}{2(-9.8)}$$

$$= 0.429 \text{ m}$$

$$6.4 + 0.429$$

MAY

143/223 Week 20

Sunday

22

Mei
Jumapili

Mei
Zondag

Mayo
Domingo

Mai
Dimanche

Maggio
Domenica

Mai
Sonntag

$$d = vt + \frac{at^2}{2}$$

$$-6.4 = 2.90t - 4.9t^2$$

$$4.9t^2 - 2.9t - 6.4$$

$$= \frac{-2.9 \pm \sqrt{2.9^2 - 4(4.9)(-6.4)}}{2(4.9)}$$

$$9.8$$

$$1.476 \text{ s}$$

J
U
N

MAY 23
145/222 Week 21
Monday
Mine
disp = 51.4m
vol = 27.6m/s
dis = 33.0

$$\theta = 74.9$$

7.00

7.30

8.00

8.30

9.00

9.30

10.00

10.30

11.00

11.30

12.00

$$y_i = v_{ys} - gt$$

13.00

13.30

14.00

14.30

15.00

15.30

16.00

16.30

17.00

17.30

18.00

18.30

19.00

19.30

20.00

20.30

21.00

21.30

22.00

22.30

23.00

23.30

24.00

24.30

25.00

25.30

26.00

26.30

27.00

27.30

disp = 64.3m
vol = 29.0m/s
dis = 34.0

Mei
Lunes

Mai
Lohi

Maggio
Lunedì

Mai
Montag

$$a = \sqrt{a_x^2 + a_y^2} = \sqrt{(0)^2 + (g)^2}$$

$$t = \frac{x}{v_x} = \frac{64.3}{29.0 \cos 33}$$

$$\frac{51.4}{27 \cos 33} = 2.27$$

$$2.2699$$

$$= 2.27$$

$$2.275$$

$$= -27 \sin 33 + 9.8 \times 2.27$$

$$\frac{7.54}{22.04} = 22.246$$

$$\theta = 18.42$$

$$22.64$$

$$23.86 \checkmark$$

$$h = \frac{1}{2} gt^2 + v_{ot}$$

$$\frac{1}{2} (-9.8) \times 2.27^2 + 7.54 \times 2.27$$

$$-25.24 + 38.85 = 13.61$$

W = 19.0
Mei
Jomanne
Speed = 3

$$v^2 = v_0^2$$

$$(30)^2$$

9.0

(30)

u

4
9

$$u = 19.9 \text{ m}$$

Mai
Mardi

Speed = 3.00 times int

$$v^2 = u^2 + 2gh$$

$$(3u)^2 = u^2 + 2(9.8)(20)$$

$$9.8 \times 19.9 = \frac{8}{2} u^2 = 6.98 \text{ m/s} \checkmark$$

$$(3u)^2 = u^2 + 2(9.8)(19.9) = 1.22$$

$$\frac{u^2 \sin(2 \times 48.6)}{g}$$

$$\frac{u^2 \sin 97.2}{g}$$

$$1.22 = \frac{u^2 \sin 97.2}{g}$$

$$\frac{u^2 \sin 97.2}{g} = \frac{5u^2}{4g} \sin 2x = 0.3712$$

$$\sin(2x) = 0.7937 \quad x = 0.3712$$

$$x = 26.26$$

$$\frac{3 \sin(26.27)}{2 \sin 48.6} = 1.3 \quad 0.88$$

$$1.3278$$

$$s_2 = 23.246 \text{ m}$$

$$59.3 = 26.509$$

$$26.51 \text{ m/s}$$

$$1893 - 3.7$$

Gr
u = 23.3 4.0 times u
MAY
145/221 Week 21
Tuesday 24

$$v = u^2 \sin(2 \times 39.6)$$

$$g_x = \frac{d}{2} \frac{2.44}{9.8}$$

J
U
N

MAY
25

146/220 Week 21

Wednesday

Mei
Jumartano

Mei
• Woensdag

Mayo
Miércoles

Mai
Mercredi

Maggio
Mercoledì

Mai
Mittwoch

Mei
Alhamisi

M
U

M

G

7.00

9.04

7.0m

7.30

12.5 sec.

8.00

11.5

8.30

9.00

$$\frac{2\pi}{11} = 0.5712 \text{ rad/s} \checkmark$$

9.30

$$= \sqrt{5.1408 \text{ m/s}^2}$$

10.00

10.30

11.00

11.30

12.00

12.30

13.00

13.30

14.00

14.30

15.00

0.6m.

$$v = 3.7699$$

$$a = 2.1534 \text{ m/s}^2$$