

30.

$$C = 1.29 + .99(S-1)$$

WHEN $S=52$

$$C = 1.29 + .99(52)$$

$$C = 51.78$$

SANDY IS NOT CORRECT.

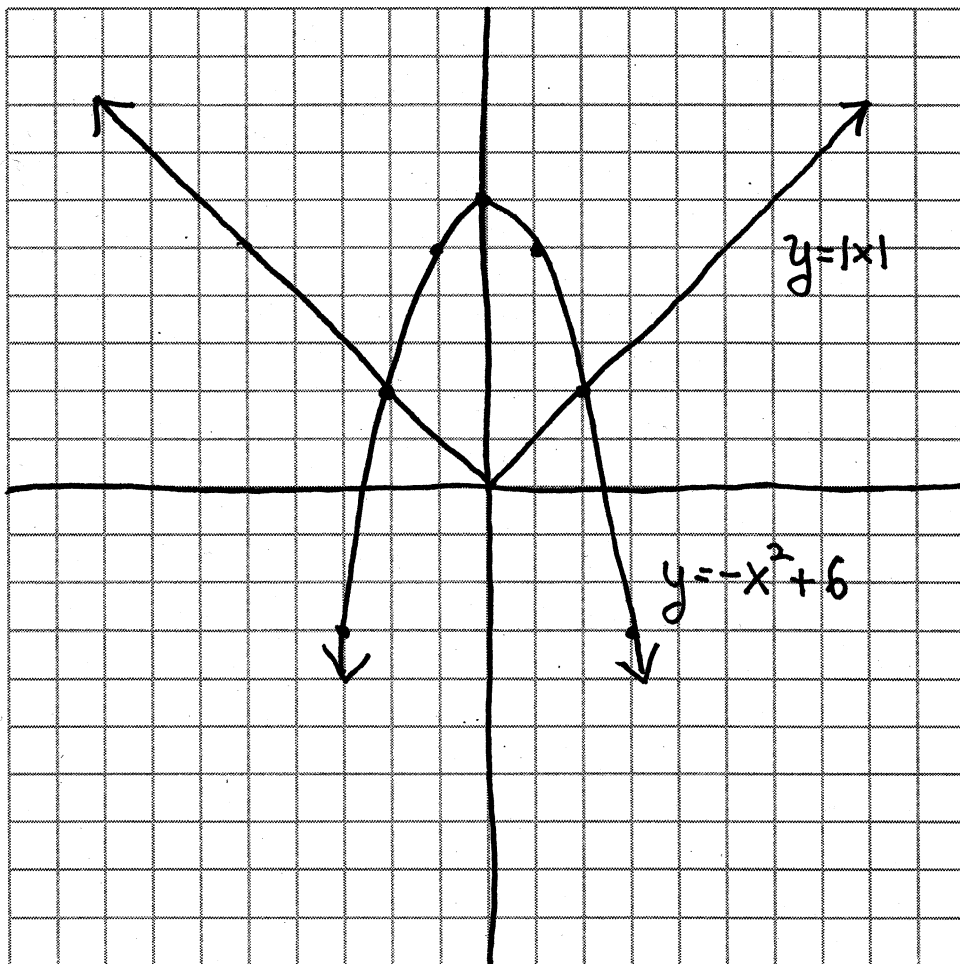
31.

T	D
2	140
7	480

$$\frac{480-140}{7-2} = \frac{340}{5} = 68 \frac{\text{MILES}}{\text{HR}}$$

33.

$$f(-2) = 2 = g(-2)$$



34.

LET

P = PRICE FOR 1 PIZZA

S = PRICE FOR 1 SODA

$$15.95 = P + 2S$$

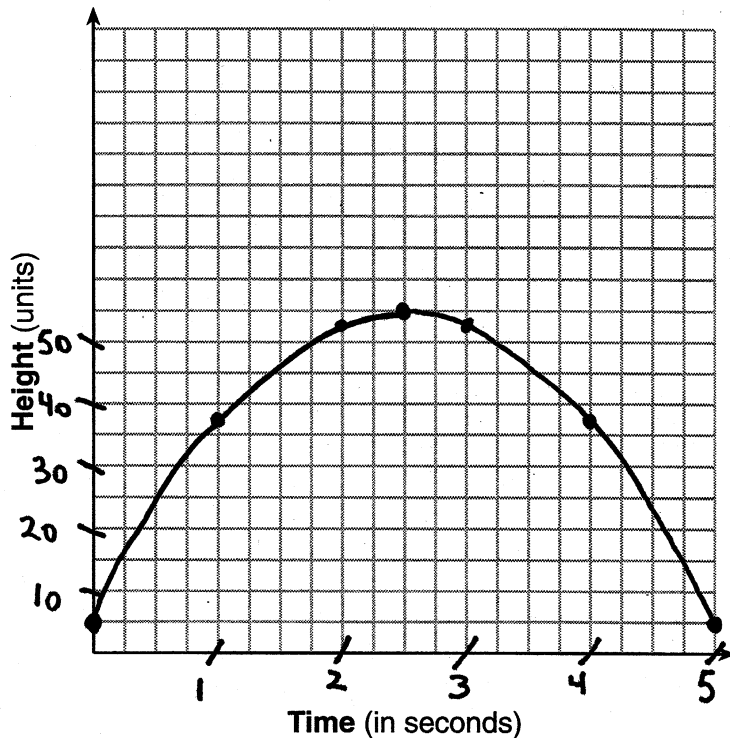
$$45.90 = 3P + 5S$$

THIS SYSTEM HAS A
SOLUTION OF

$$S = \$1.95$$

$$P = \$12.05$$

36.



State the coordinates of the vertex and explain its meaning in the context of the problem.

VERTEX IS AT

$$x = -\frac{B}{2A} = \frac{-40}{2(-8)} = +\frac{5}{2}$$

$$y = -8\left(\frac{5}{2}\right)^2 + 40\left(\frac{5}{2}\right) + 5 = 55$$

MAX HT AT

$$\left(\frac{5}{2}, 55\right)$$

37. LET

I = AMOUNT IAN OWES

K = AMOUNT KEN OWES

$$I = 1000 - 60M$$

$$K = 600 - 20M$$

THEY WILL OWE THE SAME AMOUNT
WHEN

$$1000 - 60M = 600 - 20M$$

$$400 = 40M$$

$$10 = M$$

SIX MONTHS LATER,

$$M = 16$$

$$I = 1000 - 60(16) = 40$$

IAN IS NOT CORRECT.