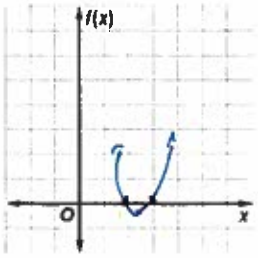
Name: Key

9-2 *Solving Quadratic Equations by Graphing* HOMEWORK

Solve each equation by graphing.

1. $x^2 - 5x + 6 = 0$ $(x-3)(x-2)$



V: (2.5, -.25)

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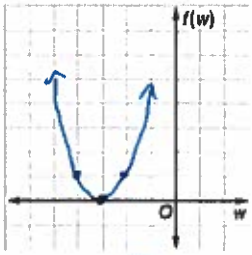
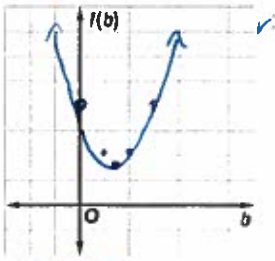
3, 2

2. $w^2 + 6w + 9 = 0$ $(w+3)^2 = 0$



-3

3. $b^2 - 3b + 4 = 0$



V

$x = \frac{3}{2}$

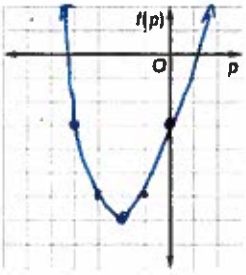
$(\frac{3}{2}, \frac{7}{4})$ or $(1.5, 1.75)$

x	y
1	2
2	2

no sol

Solve each equation by graphing. If integral roots cannot be found, estimate the roots to the nearest tenth.

4. $p^2 + 4p = 3$

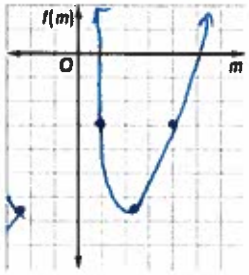


$p^2 + 4p - 3 = 0$

V: (-2, -7)

$\approx .6$ + ≈ -4.2

5. $2m^2 + 5 = 10m$

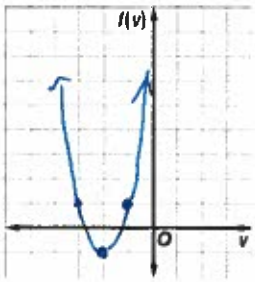


$2m^2 - 10m + 5 = 0$

V: (+2.5, -7.5)

≈ 5.2 + .9

6. $2v^2 + 8v = -7$



$2v^2 + 8v + 7 = 0$

V: (-2, -1)

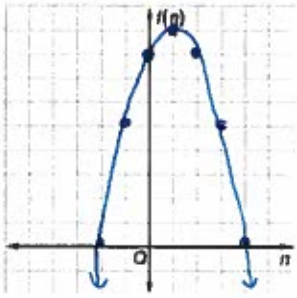
≈ -1.1 + -2.9

7. **NUMBER THEORY** Two numbers have a sum of 2 and a product of –8. The quadratic equation $-n^2 + 2n + 8 = 0$ can be used to determine the two numbers.

   a. Graph the related function $f(n) = -n^2 + 2n + 8$ and determine its x-intercepts. 4 + -2

   b. What are the two numbers?

4 + -2



V: (1, 9)