Solve each equation below using the quadratic formula. Find the solution set at the bottom of the page and print the letter of the exercise above it.

$\text{(I)}\ 2x^2 - 7x + 5 = 0$

$\text{(N)}\ 2x^2 + x - 6 = 0$

$\text{(S)}\ 3n^2 - 2n - 5 = 0$

$\text{(A)}\ w^2 + 7w + 4 = 0$

$\text{(I)}\ 5x^2 + 3x - 3 = 0$

$\text{(G)}\ 6x^2 - x = 2$

$\text{(E)}\ 2y^2 + 2 = 9y$

$\text{(I)}\ x^2 - 6x + 4 = 0$

$\text{(L)}\ t^2 + 4t - 2 = 0$

$\text{(N)}\ 3x^2 + 10x + 5 = 0$

$\text{(V)}\ 4x^2 - 3x = 1$

$\text{(L)}\ 2d^2 + 4 = 5d$

$\text{(X)}\ 2x = 7 - x^2$

$\text{(I)}\ y^2 + 9 = -9y$

Answer boxes:

$\left\{ \dfrac{9 \pm \sqrt{65}}{4} \right\}$

no solution

$\left\{ \dfrac{5}{3},\ -1 \right\}$

$\left\{ \dfrac{-9 \pm \sqrt{45}}{2} \right\}$

$\left\{ \dfrac{-7 \pm \sqrt{33}}{2} \right\}$

$\left\{ 2,\ -\dfrac{3}{2} \right\}$

$\left\{ -1 \pm \sqrt{8} \right\}$

$\left\{ \dfrac{-9 \pm \sqrt{30}}{2} \right\}$

$\left\{ \dfrac{-10 \pm \sqrt{40}}{6} \right\}$

$\left\{ \dfrac{5}{2},\ 1 \right\}$

$\left\{ -1 \pm \sqrt{45} \right\}$

$\left\{ \dfrac{3}{2},\ -\dfrac{1}{2} \right\}$

$\left\{ \dfrac{3}{2},\ -2 \right\}$

$\left\{ \dfrac{6 \pm \sqrt{20}}{2} \right\}$

$\left\{ 1,\ -\dfrac{1}{4} \right\}$

$\left\{ \dfrac{-3 \pm \sqrt{69}}{10} \right\}$

$\left\{ \dfrac{-4 \pm \sqrt{24}}{2} \right\}$

OBJECTIVE 4–e: To solve quadratic equations using the quadratic formula (more challenging exercises).

How Can You Help Control Soil Erosion?

Use the related graph or the discriminant of each equation to determine how many real-number solutions it has. Circle the letter of the correct choice and write this letter in the box containing the exercise number.
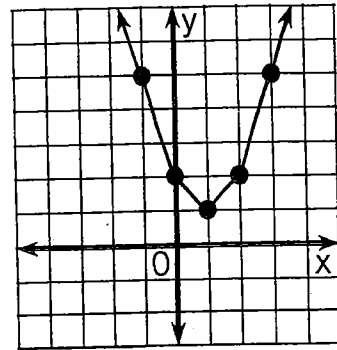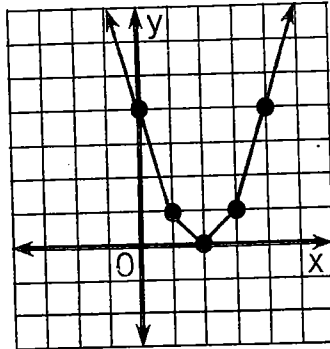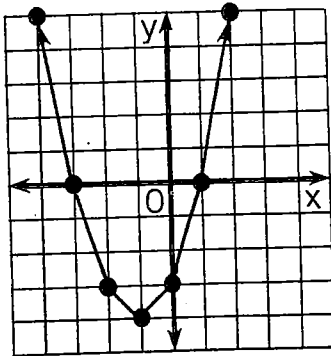
(1) $x^2 + 2x - 3 = 0$
(D) two solutions
(E) one solution
(M) no solutions

(2) $x^2 - 4x + 4 = 0$
(C) two solutions
(A) one solution
(W) no solutions

(3) $x^2 - 2x + 2 = 0$
(H) two solutions
(D) one solution
(O) no solutions

	two solutions	one solution	no solutions
(4) $x^2 + 5x + 4 = 0$	K	B	G
(5) $x^2 - 3x = 2$	U	O	A
(6) $y^2 + 10y + 25 = 0$	V	A	I
(7) $2x^2 = 4x - 3$	F	C	H
(8) $4x^2 + 9 = 12x$	S	P	N
(9) $-3n^2 + 5n - 2 = 0$	N	R	S
(10) $\frac{1}{2}x^2 + 3x + 8 = 0$	R	P	L
(11) $\frac{1}{3}t^2 + 3 = 2t$	Y	B	T

7	3	10	1	5	8	2	11	6	9	4

OBJECTIVE 4–f: To use the related graph or the discriminant of a equation to determine how many real-number solutions it has.

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