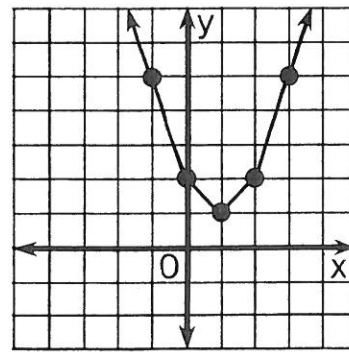
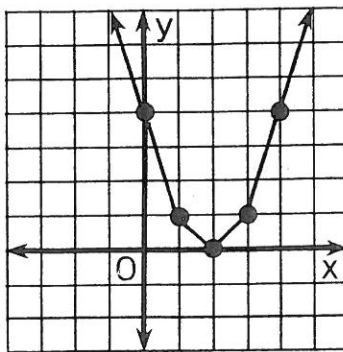
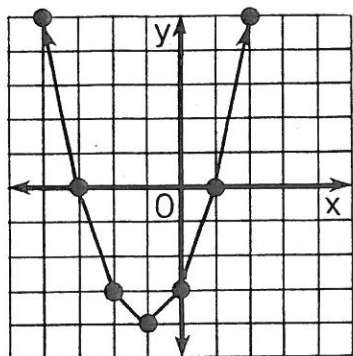


How Can You Help Control Soil Erosion?

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

What Do You Call It When Somebody Spends 20 Years in the 24th Row of a Theater?

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.

Ⓘ $2x^2 - 7x + 5 = 0$

Ⓝ $2x^2 + x - 6 = 0$

Ⓢ $3n^2 - 2n - 5 = 0$

Ⓐ $w^2 + 7w + 4 = 0$

Ⓛ $5x^2 + 3x - 3 = 0$

Ⓖ $6x^2 - x = 2$

Ⓔ $2y^2 + 2 = 9y$

Ⓛ $x^2 - 6x + 4 = 0$

Ⓛ $t^2 + 4t - 2 = 0$

Ⓝ $3x^2 + 10x + 5 = 0$

Ⓥ $4x^2 - 3x = 1$

Ⓛ $2d^2 + 4 = 5d$

ⓧ $2x = 7 - x^2$

Ⓛ $y^2 + 9 = -9y$



$\{-2 \pm \sqrt{6}\}$	$\left\{ \frac{-3 \pm \sqrt{69}}{10} \right\}$	$\left\{ 1, -\frac{1}{4} \right\}$	$\{3 \pm \sqrt{5}\}$	$\left\{ \frac{2}{3}, -2 \right\}$	$\left\{ \frac{2}{3}, -\frac{1}{2} \right\}$	$\{-1 \pm 3\sqrt{5}\}$	$\left\{ \frac{5}{2}, 1 \right\}$	$\left\{ \frac{-5 \pm \sqrt{10}}{3} \right\}$	$\left\{ \frac{-9 \pm \sqrt{30}}{2} \right\}$	$\{-1 \pm 2\sqrt{2}\}$	$\left\{ 2, -\frac{2}{3} \right\}$	$\left\{ \frac{-7 \pm \sqrt{33}}{2} \right\}$	$\left\{ \frac{-9 \pm 3\sqrt{5}}{2} \right\}$	$\left\{ \frac{5}{3}, -1 \right\}$	no solution	$\left\{ \frac{9 \pm \sqrt{65}}{4} \right\}$
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What Is a Metaphor?

Solve each equation below using the quadratic formula. Cross out the box that contains the solution set. When you finish, print the letters from the remaining boxes in the spaces at the bottom of the page.

- ① $x^2 + 4x + 3 = 0$
- ② $x^2 - 7x + 10 = 0$
- ③ $x^2 + 5x + 6 = 0$
- ④ $x^2 - 3x - 4 = 0$
- ⑤ $y^2 + 2y - 8 = 0$
- ⑥ $x^2 - 5x + 2 = 0$
- ⑦ $d^2 + 3d - 7 = 0$
- ⑧ $2x^2 - 5x + 2 = 0$
- ⑨ $2n^2 - 3n - 5 = 0$
- ⑩ $3x^2 + 5x + 1 = 0$
- ⑪ $3y^2 - 2y - 8 = 0$



ONE $\{5, 2\}$	ATH $\left\{\frac{-5 \pm \sqrt{13}}{6}\right\}$	TOK $\left\{-4, \frac{1}{2}\right\}$	ING $\left\{\frac{5}{2}, -1\right\}$	ICK $\left\{\frac{-3 \pm \sqrt{37}}{2}\right\}$
ASL $\{-2, -3\}$	EEP $\left\{\frac{3 \pm \sqrt{15}}{2}\right\}$	MET $\{2, -4\}$	BOW $\left\{2, -\frac{4}{3}\right\}$	COW $\left\{\frac{2 \pm \sqrt{30}}{6}\right\}$
BOY $\left\{2, \frac{1}{2}\right\}$	RIT $\{-1, -3\}$	SIN $\{6, 1\}$	GLE $\left\{\frac{5 \pm \sqrt{17}}{2}\right\}$	ING $\{4, -1\}$

How Can Fishermen Save Gas ?

Factor each polynomial below. Find one of the factors in **each** column of binomials. Notice the letter next to one factor and the number next to the other. Write the letter in the box at the bottom of the page that contains the matching number.

- | | | |
|--------------------|--------------|--------------|
| ① $4n^2 - 49$ | ③ $(n + 1)$ | ① $(n - 3)$ |
| ② $n^2 + 8n + 12$ | ⑪ $(n + 2)$ | ⑦ $(2n - 7)$ |
| ③ $n^2 - 9n + 20$ | ② $(n + 8)$ | ③ $(n - 5)$ |
| ④ $n^2 + 16n + 64$ | ⑨ $(2n + 7)$ | ⑤ $(3n - 5)$ |
| ⑤ $n^2 + 2n - 15$ | ④ $(n + 5)$ | ⑨ $(n + 8)$ |
| ⑥ $3n^2 - 8n + 5$ | ⑱ $(n - 1)$ | ① $(3n - 1)$ |
| | ⑭ $(n - 4)$ | ② $(n + 6)$ |



- | | | |
|---------------------|----------------|----------------|
| ⑦ $a^2 + 4a - 21$ | ① $(a - 5)$ | ⑦ $(2a + 1)$ |
| ⑧ $5a^2 + 9a - 2$ | ⑬ $(a + 7)$ | ② $(a - 6)$ |
| ⑨ $2a^2 + 11a + 15$ | ⑤ $(5a + 1)$ | ③ $(a - 3)$ |
| ⑩ $1 - 9a^4$ | ⑦ $(a + 2)$ | ① $(a + 3)$ |
| ⑪ $a^2 - 11a + 30$ | ⑮ $(a - 1)$ | ⑤ $(5a - 1)$ |
| ⑫ $10a^2 - 3a - 1$ | ⑧ $(1 - 3a^2)$ | ④ $(2a - 1)$ |
| | ⑯ $(2a + 5)$ | ⑥ $(1 + 3a^2)$ |



- | | | |
|---------------------|---------------|--------------|
| ⑬ $8u^2 + 19u + 6$ | ⑩ $(u + 3)$ | ① $(u + 1)$ |
| ⑭ $25u^2 - 20u + 4$ | ⑫ $(2u + 9)$ | ② $(2u + 1)$ |
| ⑮ $3u^2 - 11u - 14$ | ⑰ $(u - 3)$ | ① $(8u + 3)$ |
| ⑯ $u^2 - 4u - 21$ | ③ $(5u - 2)$ | ③ $(2u - 1)$ |
| ⑰ $6u^2 + 17u - 10$ | ⑥ $(3u - 14)$ | ② $(u - 7)$ |
| ⑱ $2u^2 + 5u - 18$ | ⑮ $(u + 2)$ | ④ $(u - 2)$ |
| | ⑰ $(3u + 10)$ | ⑤ $(5u - 2)$ |

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
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