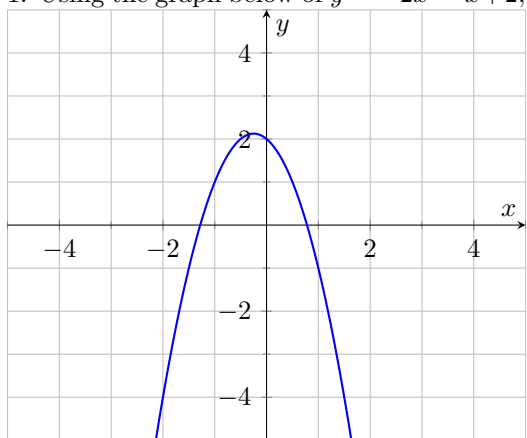


1. Using the graph below of $y = -2x^2 - x + 2$, determine how many real number solutions of $-2x^2 - x + 2 = 0$.



- A. This equation has 3 real number solutions
- B. This equation has infinitely many solutions
- C. This equation has 1 real number solution.
- D. This equation has 4 real number solutions
- E. This equation has 5 real number solutions
- F. This equation has 6 real number solutions
- G. This equation has 2 real number solutions
- H. This equation has no real number solutions.

2. Solve the quadratic equation and completely simplify your answer. $16s^2 - 8s - 179 = 0$

- A. $s = \frac{1 \pm \sqrt{3}}{4}$
- B. $s = \frac{1 \pm 6\sqrt{5}}{4}$
- C. $s = \frac{1 \pm \sqrt{30}}{4}$
- D. $s = \frac{1 \pm \sqrt{10}}{4}$
- E. $s = \frac{1 \pm 2\sqrt{3}}{4}$
- F. $s = \frac{1 \pm 2\sqrt{5}}{4}$
- G. $s = \frac{1 \pm \sqrt{15}}{4}$
- H. $s = \frac{1 \pm 6\sqrt{5}}{4}$

3. Solve the quadratic equation. Leave the radical unsimplified. $-9\phi^2 - 8\phi = 7$

A. $\phi = \frac{-8 \pm \sqrt{104}}{-18}$

B. $\phi = \frac{-8 \pm \sqrt{33}}{18}$

C. $\phi = \frac{8 \pm \sqrt{31}}{-18}$

D. $\phi = \frac{8 \pm \sqrt{188}}{-18}$

E. $\phi = \frac{-8 \pm \sqrt{32}}{18}$

F. $\phi = \frac{-8 \pm \sqrt{97}}{-18}$

G. $\phi = \frac{8 \pm \sqrt{109}}{-18}$

H. This equation has no real number solutions.

4. How many real number solutions does the equation $-4x^2 + 8x - 4 = 0$ have?

A. This equation has infinitely many solutions

B. This equation has 5 real number solutions

C. This equation has 3 real number solutions

D. This equation has 1 real number solution

E. This equation has 2 real number solutions.

F. This equation has no real number solutions.

G. This equation has 4 real number solutions

H. This equation has 6 real number solutions

5. Solve the quadratic equation. Leave the radical unsimplified. $5\beta^2 + 2\beta = -7$

A. $\beta = \frac{-2 \pm \sqrt{292}}{10}$

B. $\beta = \frac{2 \pm \sqrt{40}}{-10}$

C. $\beta = \frac{2 \pm \sqrt{33}}{-10}$

D. This equation has no real number solutions.

E. $\beta = \frac{2 \pm \sqrt{17}}{10}$

F. $\beta = \frac{-2 \pm \sqrt{232}}{10}$

G. $\beta = \frac{2 \pm \sqrt{152}}{10}$

H. $\beta = \frac{-2 \pm \sqrt{136}}{10}$

6. Solve the quadratic equation. Leave the radical unsimplified. $-2\xi^2 + 7\xi - 4 = 0$

A. $\xi = \frac{7 \pm \sqrt{21}}{-4}$

B. $\xi = \frac{-7 \pm \sqrt{112}}{-4}$

C. $\xi = \frac{7 \pm \sqrt{153}}{4}$

D. $\xi = \frac{-7 \pm \sqrt{17}}{-4}$

E. $\xi = \frac{7 \pm \sqrt{141}}{4}$

F. $\xi = \frac{7 \pm \sqrt{349}}{-4}$

G. This equation has no real number solutions.

H. $\xi = \frac{-7 \pm \sqrt{297}}{-4}$

7. Solve the quadratic equation and completely simplify your answer. $9w^2 + 12w - 26 = 0$

A. $w = \frac{2 \pm \sqrt{30}}{3}$

B. $w = \frac{-2 \pm 6}{3}$

C. $w = \frac{-2 \pm 2\sqrt{15}}{3}$

D. $w = \frac{-2 \pm \sqrt{30}}{3}$

E. $w = \frac{-2 \pm \sqrt{5}}{3}$

F. $w = \frac{2 \pm 6\sqrt{5}}{3}$

G. $w = \frac{2 \pm 2\sqrt{15}}{3}$

H. $w = \frac{2 \pm 1}{3}$

8. Solve the quadratic equation. Leave the radical unsimplified. $3v^2 = 5v + 1$

A. This equation has no real number solutions.

B. $v = \frac{5 \pm \sqrt{37}}{6}$

C. $v = \frac{-5 \pm \sqrt{132}}{6}$

D. $v = \frac{-5 \pm \sqrt{176}}{-6}$

E. $v = \frac{-5 \pm \sqrt{176}}{-6}$

F. $v = \frac{-5 \pm \sqrt{132}}{6}$

G. $v = \frac{5 \pm \sqrt{20}}{6}$

H. $v = \frac{5 \pm \sqrt{64}}{6}$