

3.10.20

At The Bell: **Keystone:** An expression is shown.

Which value of x makes the expression equivalent to

$$12\sqrt{7}?$$

- ~~A. 2~~
- ~~B. 4~~
- ~~C. 8~~
- D. 16

$$3\sqrt{7x} = 12\sqrt{7}$$
$$\sqrt{7} = \sqrt{7}$$

Algebra 1 (Swanick)

Name _____

9-4 Quadratic Equations NOTES

Date _____ Period _____

Solve each equation by factoring. Check your solution(s)!

1) $(n+4)(n-4)=0$

$$\begin{array}{rcl} n+4=0 & n-4=0 & \\ -4 & +4 & \\ \hline n=-4 & n=4 & \\ & \{ -4, 4 \} & \end{array}$$

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

$$\begin{array}{rcl} (b-1)(b-3)=0 & & \\ b-1=0 & b-3=0 & \\ b=1 & b=3 & \\ & \{ 1, 3 \} & \end{array}$$

3) $r^2 - 10r + 20 = 4$

$$\begin{array}{rcl} & -4 & -4 \\ \hline r^2 - 10r + 16 = 0 & & \\ (r-2)(r-8)=0 & & \\ r-2=0 & r-8=0 & \\ r=2 & r=8 & \\ & \{ 2, 8 \} & \end{array}$$

4) $k^2 - 4k = 0$

$$\begin{array}{rcl} k(k-4)=0 & & \\ k=0 & k-4=0 & \\ & k=4 & \\ & \{ 0, 4 \} & \end{array}$$

Assignment:

What is the Title of this
Picture?

What Is the Title of This Picture?

Solve each equation below. Find the solution set in the answer list and notice the letter next to it. Each time the exercise number appears in the code, write this letter above it. Keep working and you will decode the title of the picture.

① $a^2 + 7a + 10 = 0$

② $n^2 - 8n + 12 = 0$

③ $y^2 - 49 = 0$

④ $x^2 + 5x - 6 = 0$

⑤ $u^2 - 7u - 18 = 0$

⑥ $m^2 - 5m = 0$

⑦ $2t^2 + 5t - 3 = 0$

$(3w-2)(w-2)$ ⑧ $3w^2 - 8w + 4 = 0$

⑨ $2x^2 - 3x - 5 = 0$

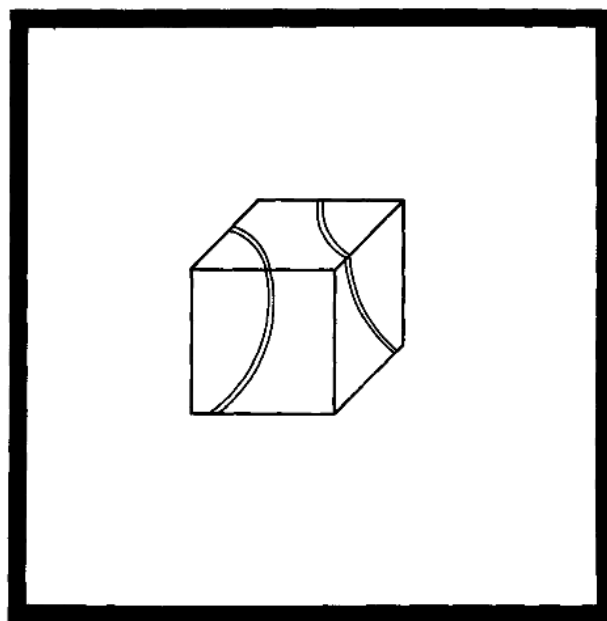
$(5v+4)(v+5)$ ⑩ $5v^2 + 29v + 20 = 0$

$(2n-3)(3n-5)$ ⑪ $6n^2 - 19n + 15 = 0$

⑫ $2k^2 + 7k = 0$

⑬ $3b^2 + b - 10 = 0$

⑭ $4y^2 - 25 = 0$



CODED TITLE:

(14 12 13 13 1 6 9 11 5 5
10 11 2 14 3 8 4 8 12 7 12 2 14)

Ⓐ $\left\{\frac{5}{3}, -2\right\}$

Ⓑ $\left\{\frac{3}{2}, \frac{5}{2}\right\}$

Ⓒ $\left\{\frac{5}{2}, -1\right\}$

Ⓓ $\{-2, 9\}$

Ⓔ $\left\{\frac{2}{3}, 2\right\}$

Ⓕ $\{-2, -5\}$

Ⓖ $\left\{0, -\frac{7}{2}\right\}$

Ⓗ $\left\{\frac{3}{5}, -1\right\}$

Ⓘ $\{0, 5\}$

Ⓣ $\left\{\frac{5}{2}, -\frac{5}{2}\right\}$

Ⓨ $\{-6, 1\}$

Ⓒ $\{2, 6\}$

Ⓞ $\{7, -7\}$

Ⓕ $\left\{-\frac{4}{5}, -5\right\}$

Ⓙ $\left\{\frac{1}{2}, -3\right\}$

Ⓐ $\left\{\frac{3}{2}, \frac{5}{3}\right\}$