

7.7 Puzzle Time

When Do You Put The Cart Before The Horse?

Write the letter of each answer in the box containing the exercise number.

Factor the polynomial.

1. $x^2 - 36$
2. $81 - 25x^2$
3. $x^2 + 14x + 49$
4. $4x^2 - 44x + 121$
5. $64x^2 - 9y^2$
6. $100x^2 - 20x + 1$
7. $3x^2 - 3$
8. $-x^2 + 144$
9. $4x^2 - 16x + 16$
10. $-18x^2 + 60x - 50$

Solve the equation.

11. $x^2 - 64 = 0$
12. $49 - 4x^2 = 0$
13. $x^2 = 8x - 16$
14. $36x^2 = -12x - 1$
15. You drop a penny while taking change out of your pocket. The function $y = 49 - 9t^2$ represents the height y (in feet) of the penny t seconds after it falls from your pocket. How many seconds does it take for the penny to land on the ground?

Answers

- H. $-2(3x - 5)^2$
- T. $(9 + 5x)(9 - 5x)$
- N. $3(x + 1)(x - 1)$
- C. $(2x - 11)^2$
- E. $(8x + 3y)(8x - 3y)$
- R. $4(x - 2)^2$
- A. $(x - 6)(x + 6)$
- N. $(10x - 1)^2$
- T. $-(x + 12)(x - 12)$
- I. $(x + 7)^2$ Y. 4
- D. $\frac{7}{3}$ I. -8, 8
- O. $-\frac{7}{2}, \frac{7}{2}$ I. $-\frac{1}{6}$

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