



2.7 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. After how many seconds does the penny land on the ground?

Answers

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

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

A

NAME _____

2.6 Review

In Exercises 1–12, factor the polynomial.

1. $6x^2 - 12x - 18$

4. $2x^2 + 2x - 4$

7. $4x^2 + 21x - 18$

10. $-2p^2 + 7p - 6$

2. $5x^2 - 15x - 50$

5. $6x^2 - 7x - 20$

8. $2x^2 - 13x - 45$

11. $-5v^2 + 31v - 6$

3. $9x^2 - 36x + 27$

6. $2x^2 - 5x - 3$

9. $3x^2 + 22x - 16$

12. $-6v^2 - 11v - 4$

2.5 Review

In Exercises 1–12, factor the polynomial.

1. $x^2 + 5x + 6$

4. $w^2 - 7w + 12$

7. $x^2 + x - 20$

10. $n^2 - 3n - 40$

2. $x^2 + 8x + 12$

5. $y^2 - 14y + 24$

8. $y^2 - 6y - 16$

11. $d^2 + 5d - 24$

3. $z^2 + 11z + 28$

6. $x^2 - 11x + 28$

9. $m^2 + 8m - 9$

12. $z^2 + 3z - 28$