

Solving by: Factoring & Square Roots

Period _____

Solve each equation by factoring.

1) $r^2 - 24 = -5r$

2) $n^2 - 14 = -5n$

3) $x^2 = 2 + x$

4) $v^2 = 2v$

5) $2p^2 = -p + 1$

6) $5v^2 = 29v + 6$

7) $5m^2 = 19m + 30$

8) $2a^2 = a + 10$

9) $2x^2 = -3 - 7x$

10) $14x^2 - 12 = 13x$

Solve each equation by taking square roots.

11) $m^2 = 4$

12) $v^2 = 98$

13) $5v^2 - 8 = 147$

14) $6n^2 + 9 = 609$

15) $9x^2 + 5 = 149$

16) $8x^2 - 5 = 123$

17) $5k^2 - 3 = 402$

18) $36r^2 + 1 = 65$

19) $25r^2 = 49$

20) $v^2 - 1 = 17$

$$21) 0 = -\frac{1}{2}(x+2)^2 + 4$$

$$22) 0 = -(x+3)^2 - 3$$

$$23) 16(x+2)^2 - 1 = 0$$

$$24) 0 = \frac{1}{3}(x+3)^2 - 4$$

$$25) 9(x-2)^2 + 3 = 39$$

$$26) -4(x-4)^2 + 2 = -26$$

$$27) -2(x+1)^2 + 1 = -49$$

$$28) (x-3)^2 + 2 = 77$$