Precalc Name_____

Quadratics practice (3.4)

Find the roots (x-intercepts) of each quadratic and rewrite it in factored form.

1) $x^2 + 4x - 5 = 0$

2) $n^2 + 2n - 63 = 0$

3) $a^2 + 14a - 95 = 0$

4) $n^2 + 10n + 9 = 0$

5) $m^2 - 16m + 48 = 0$

6) $k^2 + 4k - 77 = 0$

7) $8x^2 + 16x + 1 = 0$

8) $5x^2 - 10x - 75 = 0$

9) $x^2 + 10x - 89 = 0$

10) $8b^2 - 16b - 42 = 0$

11) $v^2 + 8v - 9 = 0$

12) $v^2 + 20v + 64 = 0$

13) $3x^2 + 12x + 5 = 0$

14) $10b^2 - 8b - 16 = 0$

15) $5x^2 - 11x + 2 = 0$

16) $3k^2 - 3 = 0$

17) $11n^2 - 7n + 12 = 0$

18) $x^2 + 10x - 39 = 0$

19) $4x^2 - 11 = 0$

20) $11n^2 - 4n + 8 = 0$

21) $12b^2 + 8b + 2 = 0$

22) $4n^2 - 12n - 19 = 0$

23) $n^2 + 6n - 9 = 0$

24) $12x^2 + 11x + 7 = 0$

25) $6x^2 + 4x - 12 = 0$

26) $9n^2 - 6n - 16 = 0$

27) $2v^2 - 16 = 0$

28) $6n^2 - 7n - 24 = 0$

Answers to Quadratics practice (3.4)

1) $\{1, -5\}$
2) $\{7, -9\}$
3) $\{5, -19\}$
4) $\{-1, -9\}$
5) $\{12, 4\}$
6) $\{7, -11\}$
7) $\left\{\frac{-4 + \sqrt{14}}{4}, \frac{-4 - \sqrt{14}}{4}\right\}$
8) $\{5, -3\}$
9) $\{-5 + \sqrt{114}, -5 - \sqrt{114}\}$
10) $\left\{\frac{7}{2}, -\frac{3}{2}\right\}$
11) $\{1, -9\}$
12) $\{-4, -16\}$
13) $\left\{\frac{-6 + \sqrt{21}}{3}, \frac{-6 - \sqrt{21}}{3}\right\}$
14) $\left\{\frac{2 + 2\sqrt{11}}{5}, \frac{2 - 2\sqrt{11}}{5}\right\}$
15) $\left\{2, \frac{1}{5}\right\}$
16) $\{1, -1\}$
17) $\left\{\frac{7 + i\sqrt{479}}{22}, \frac{7 - i\sqrt{479}}{22}\right\}$
18) $\{3, -13\}$
19) $\left\{\frac{\sqrt{11}}{2}, -\frac{\sqrt{11}}{2}\right\}$
20) $\left\{\frac{2 + 2i\sqrt{21}}{11}, \frac{2 - 2i\sqrt{21}}{11}\right\}$
21) $\left\{\frac{-2 + i\sqrt{2}}{6}, \frac{-2 - i\sqrt{2}}{6}\right\}$
22) $\left\{\frac{3 + 2\sqrt{7}}{2}, \frac{3 - 2\sqrt{7}}{2}\right\}$
23) $\{-3 + 3\sqrt{2}, -3 - 3\sqrt{2}\}$
24) $\left\{\frac{-11 + i\sqrt{215}}{24}, \frac{-11 - i\sqrt{215}}{24}\right\}$
25) $\left\{\frac{-1 + \sqrt{19}}{3}, \frac{-1 - \sqrt{19}}{3}\right\}$
26) $\left\{\frac{1 + \sqrt{17}}{3}, \frac{1 - \sqrt{17}}{3}\right\}$
27) $\{2\sqrt{2}, -2\sqrt{2}\}$
28) $\left\{\frac{8}{3}, -\frac{3}{2}\right\}$