

$$43) \quad 18x^2 + 9x - 14 = 0$$

$$\left. \begin{array}{l} 18x^2 + 21x \\ 3x(6x+7) \end{array} \right\} \begin{array}{l} -12x - 14 = 0 \\ -2(6x+7) = 0 \end{array}$$

$$18 - 14 = 4$$

$$9 - 28 = -19$$

$$36 - 7 = 29$$

$$(3x-2)(6x+7) = 0$$

$$21 + 12 = 9$$

$$21 \cdot -12 = -252$$

252

$$2 \cdot 126$$

$$3 \cdot 84$$

$$4 \cdot 63$$

$$6 \cdot 42$$

$$7 \cdot 36$$

$$14 \cdot 18$$

$$21 \cdot 12 = 9$$

$$(3x-2)(6x+7)=0$$

$$(0)(6x+7)=0$$

$$(3x-2)(0)=0$$

$$\begin{array}{r} 3x-2=0 \\ +2 \quad +2 \\ \hline \end{array}$$

$$\frac{3x}{3} = \frac{2}{3}$$

$$x = 2/3$$

$$\begin{array}{r} 6x+7=0 \\ -7 \quad -7 \\ \hline \end{array}$$

$$\frac{6x}{6} = \frac{-7}{6}$$

$$x = -7/6$$

45)

$$-84 = -28 \cdot 3$$

$$-25 = -28 + 3$$

$$-42 + 2 = -40$$

$$-21 + 4 = -17$$

$$-28 + 3 = -25$$

$$12x^2 - 25x - 7 = 0$$

$$12x^2 - 28x + 3x - 7 = 0$$

$$4x(3x-7) + 1(3x-7) = 0$$

$$(4x+1)(3x-7) = 0$$

$$4x+1=0$$

$$\frac{-1}{4} = \frac{-1}{4}$$

$$\frac{4x}{4} = \frac{-1}{4}$$

$$x = -\frac{1}{4}$$

$$3x-7=0$$

$$\frac{+7}{3} = \frac{+7}{3}$$

$$\frac{3x}{3} = \frac{7}{3}$$

$$x = \frac{7}{3}$$

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Homework
#10-21 all, #30-37 all
If no school #22-29 all

Factor the trinomial. If the trinomial cannot be factored, say so. (Lesson 5.2)

10. $x^2 + 8x + 15$

11. $m^2 - 9m + 20$

12. $3x^2 + 11x - 4$

13. $6x^2 + 5x - 6$

14. $9a^2 - 56a + 12$

15. $4u^2 - 4u - 35$

16. $n^2 - 49$

17. $x^2 - 10x + 25$

18. $16m^2 - 24m + 9$

19. $4x^2 - 2x - 20$

20. $3p^2 + 15p - 42$

21. $6x^2 + 13x - 25$

Solve the equation. (Lesson 5.2)

22. $x^2 + 10x + 21 = 0$

23. $2x^2 - 13x - 7 = 0$

24. $3x^2 - 24x - 27 = 0$

25. $25m^2 - 20m + 4 = 0$

26. $x^2 - 8x = -15$

27. $8k^2 + 5k = 2k^2 + 4$

28. $10x^2 - 3x = -2x^2 + 36$

29. $2(q^2 - 20) + 17q = -10q^2$

Write the quadratic function in intercept form and give the function's zeros.

(Lesson 5.2)

30. $y = x^2 + 10x + 9$

31. $y = x^2 - 5x$

32. $y = 2x^2 + 3x - 2$

33. $y = 6x^2 - 24$

34. $y = 4x^2 - 12x + 8$

35. $y = 5x^2 - 13x + 6$

36. $y = 4x^2 + 22x + 24$

37. $y = 7x^2 - 63$