**3.4 Solve Quadratic Equations by Factoring ⸱ Form B**

**All work must be completed, clearly, on a separate page. Circle/Box final answers only on WS. No work = No credit.**

**Examples 1 and 2**

**Solve each equation by factoring. Check your solution.**

**1.** 6*x*2 – 2*x* = 0 **2.** 20*x*2 = –25*x* **3.** *x*2 + 14*x* + 33 = 0

**Example 3**

**4. GEOMETRY** The length of a rectangle is 2 feet more than its width. Find the dimensions of the rectangle if its area is 63 square feet.

**Example 4**

**Solve each equation by factoring. Check your solution.**

 **5.** 2*x*2 – *x* – 3 = 0 **6.** 5*x*2 + 28*x* – 12 = 0 **7.** 2*x*2 – 11*x* – 40 = 0

**Example 5–7**

**Solve each equation by factoring. Check your solution.**

 **8.** *x*2 = 64  **9.** 289 = *x*2 **10.** *x*2 – 169 = 0

 **11.** 4*x*2 ‒ 28*x* + 49 = 0 **12.** 16*x*2 ‒ 24*x* + 13= 4 **13.** 25*x*2 + 80*x* + 64 = 0

 **14.** *x*2 + 12 = –13  **15.** *x*2 = ‒225 **16.** 36*x*2 = –25

**Mixed Exercises**

 **17. FIND THE ERROR** Jade and Mateo are solving ‒12*x*2 + 5*x* + 2 = 0. Is either of them correct? Explain your reasoning.

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**~~18. CREATE~~** ~~Choose two integers. Then write an equation in standard form with those roots. How would the equation change if the signs of the two roots were switched?~~

 **~~19. WRITE~~** ~~Explain how to factor a trinomial in standard form with~~ *~~a~~* ~~> 1.~~