DO NOW
Find the zeros of the function:

$f(x) = 8x^2 - 10x - 3$

$-24$

$0 = \frac{8x^2}{4x} - \frac{12x}{4x}\left(\frac{+2x}{1} - \frac{3}{1}\right)$

$0 = 4x(2x-3)+1(2x-3)$

$0 = (2x-3)(4x+1)$

$2x-3=0 \quad 4x+1=0$

$+3+3 \quad -1-1$

$\frac{2x}{2} = \frac{3}{2} \quad \frac{4x}{4} = \frac{-1}{4}$

$x = \frac{3}{2} \quad x = \frac{-1}{4}$

$\left\{-\frac{1}{4}, \frac{3}{2}\right\}$

Apr 13-7:00 AM

HW Answers

1. $x = \pm 3$
2. $x = 0, x = -\frac{2}{7}$
3. $x = -7, x = 5$
4. $z = \frac{5}{3}, z = -\frac{5}{3}$
5. $n = \frac{2}{3}, n = 6$

Mar 6-9:04 AM

Solving a Quadratic Equation by Factoring

Write the equation in standard form (needs to be = 0!!)

Factor completely

Set EACH factor equal to 0 and solve

Check ALL solutions in the ORIGINAL equation

Apr 13-7:18 AM

Solve and check:

1) $2x^2 = 16x - 32$

$-16x \quad -16x$

$2x^2 - 16x = -32$

$+32 \quad +32$

$\frac{2x^2}{2} - \frac{16x}{2} + \frac{32}{2} = 0$

$2(x^2 - 8x + 16) = 0$

$2(x-4)(x-4) = 0$

$2 \neq 0 \quad x-4=0 \quad x-4=0$

$+4+4 \quad +4 \quad +4$

$x = 4 \quad x = 4$

$\{4\}$

Check

$2x^2 = 16x - 32$

$2(4)^2 = 16(4) - 32$

$2(16) = 16(4) - 32$

$32 = 64 - 32$

$32 = 32 \checkmark$

Apr 13-7:26 AM

Solve and check:

2) $9n^2 = 49$

$-49 \quad -49$

$\sqrt{9n^2} - \sqrt{49} = 0$

$(3n-7)(3n+7) = 0$

$3n-7=0 \quad 3n+7=0$

$+7+7 \quad -7-7$

$\frac{3n}{3} = \frac{7}{3} \quad \frac{3n}{3} = \frac{-7}{3}$

$n = \frac{7}{3} \quad n = \frac{-7}{3}$

Check

$9n^2 = 49$

$9\left(\frac{7}{3}\right)^2 = 49$

$9\left(\frac{49}{9}\right) = 49$

$\frac{49}{1} = 49$

$49 = 49 \checkmark$

$9n^2 = 49$

$9\left(-\frac{7}{3}\right)^2 = 49$

$9\left(\frac{49}{9}\right) = 49$

$49 = 49 \checkmark$

Apr 13-7:24 AM

Solve and check:

3) $x(6x - 13) = 8$

Apr 13-7:36 AM

Solve and check:

4) $x^2 = 6x$

Apr 13-7:22 AM

Solve and Check:

5) $x^2 + 3x = 10$

Apr 14-7:29 AM

HOMEWORK

Workbook

p. 451

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**Must be done on looseleaf paper!!!

Mar 6-9:14 AM