pg 20 # 33, 35, 37, 39, 41, 45, 47, 49, 57, 59, 62, 63, 65

33) $\frac{17}{4573}$ Rational - fraction

35) $\sqrt{113}$ Irrational - decimal non-terminating and non-repeating

37) $5\frac{2}{3}$ ___ $\sqrt{29}$

$5.\overline{6}$ < 5.385...

39) $\frac{4}{3}$ ___ $\sqrt{2}$

$1.\overline{3}$ < 1.4142...

41) $\frac{-7}{11}$ ___ -0.63

$-.\overline{6363}...$ > -0.63

45) $\frac{1}{2}, -2, \sqrt{5}, \frac{-7}{4}, 2.4$ Convert to decimals

$\frac{1}{2} = .5$

$\sqrt{5} = 2.236...$

$\frac{-7}{4} = -1.75$

$-2, -\frac{7}{4}, \frac{1}{2}, \sqrt{5}, 2.4$

47) $-6, \sqrt{20}, 4.3, \frac{-59}{9}$ Convert

$\sqrt{20} = 4.472...$

$\frac{-59}{9} = -6.\overline{5}$

$\frac{-59}{9}, -6, 4.3, \sqrt{20}$

49) $\frac{-13}{6}, -2.1, \frac{-26}{13}, \frac{-9}{4}$

$-\frac{9}{4}, \frac{-13}{6}, -2.1, \frac{-26}{13}$

Convert to decimals

$\frac{-13}{6} = -2.1\overline{6}$

$\frac{-26}{13} = -2$

$\frac{-9}{4} = -2.25$

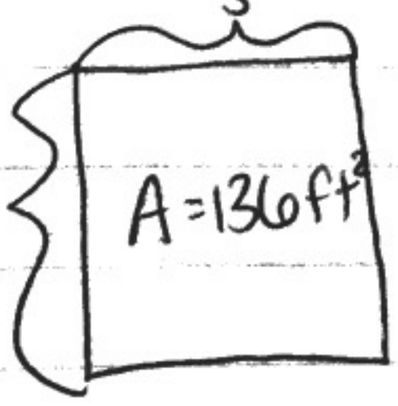
57) $\frac{417}{1}$

59) 2.01 (multiply by 100)

$\frac{201}{100}$

62) No, $\sqrt{7}$ is irrational because 7 is not a perfect square. Therefore $\sqrt{7}$ is non-terminating and non-repeating.

63)



$s = ?$

$A = 136$

$A = s^2$

$\frac{136}{\sqrt{136}} = \frac{s^2}{\sqrt{s^2}}$

$\approx 12ft = s$

$\sqrt{121} = 11$, $\sqrt{136}$ (15), $\sqrt{144} = 12$ (8)

65) $\frac{864}{275} = 3.141818...$ ← this is closer

$\pi = 3.1415...$

$\sqrt{10} = 3.1622...$

$\frac{864}{275}$ is the better estimate because its value is closer to 3.14... (π).