

8.8

Source	df	SS	MS	F
Groups	3	960	320	2
Error	36	5760	160	
Total		6720		

$$n_1 = n_2 = n_3 = n_4 = 10$$

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

$$H_a: \text{not } H_0$$

Total 8.10

Group	n	mean	SD
1	16	4.8	1.3
2	16	3.4	1.6
3	16	3.2	1.2
overall	48	3.8	

$$H_0: \mu_1 = \mu_2 = \mu_3$$

vs.

$$H_a: \text{not } H_0$$

$$F = \frac{MSE}{MSE} = \frac{16(4.8 - 3.8)^2 + 16(3.4 - 3.8)^2 + 16(3.2 - 3.8)^2}{2}$$

$$15(1.3)^2 + 15(1.6)^2 + 15(1.2)^2$$

45

$$\frac{12.16}{1.9} = \underline{6.4} \Rightarrow p\text{-value} = .0036$$

\Rightarrow reject H_0