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| A manager at LLD Records is investigating the company's market research techniques. She learns that much of the market research of college students is done during promotions on college campuses. She also learns that there are other methods of performing market research (for instance, over the phone, in a mall, etc.). In all cases, for each new CD thta LLD Records releases, the company solicits an "intent-to-purchase" score from the student, with http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/NM?2being the lowest score ("no intent to purchase") and 100 being the highest score ("full intent to purchase"). The manager finds some information on a soon-to-be-released CD. The information details the intent-to-purchase scores from each of several groups of college students, with each group being questioned via a different method. Based on this information, the manager is able to perform a one-way, independent-samples ANOVA test of the hypothesis that the mean intent-to-purchase score for this CD is the same no matter the method of score collection. This test is summarized in the ANOVA table below. Fill in the missing entry in the ANOVA table (round your answer to at least two decimal places), and then answer the questions below.  |

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| source of variation | degrees of freedom | sum of squares | mean square | f-statistic |
| treatments between groups | 5 | 749.6 | 149.9 |   |
| error within groups | 168 | 16248.4 | 96.7 |  |
| total | 173 | 16998 |  |  |

For the ANOVA test, it is assumed that the population variances of intent-to-purchase scores are the same no matter the method of score collection. What is an unbiased estimate of this common population of variance based on the sample variances?

Using the 0.05 level of significance, what is the critical value of the F-statistic for the ANOVA test? (Round two places)