
The deadline for all homework assignments is the one specified in Archie before 11:59 pm. As discussed in class, It must be correctly uploaded in order to be graded. Show all your work and justifications.

For Exercises 47–56, simplify each expression. Assume that all all variable expressions represent positive real numbers.

47. $\frac{a^{2/3}a^{5/3}}{a^{1/3}}$

48. $\frac{y^{7/5}y^{4/5}}{y^{1/5}}$

49. $\frac{3w^{-2/3}}{y^{-1/3}}$

50. $\frac{8d^{-5/7}}{c^{-3/4}}$

51. $(16x^{-8}y^{1/5})^{3/4}$

52. $(125a^6b^{-7/5})^{1/3}$

53. $\left(\frac{2m^{2/3}}{n^{3/4}}\right)^{12}\left(\frac{n^{1/5}}{2m^{1/2}}\right)^{10}$

54. $\left(\frac{3x^{1/2}}{y^{3/8}}\right)^4\left(\frac{y^{1/2}}{3x^{4/3}}\right)^3$

56. $\left(\frac{c^2}{c-d}\right)^{-2}\left(\frac{c^2}{c-d}\right)^{3/2}$

55. $\left(\frac{m^2}{m+n}\right)^{-1}\left(\frac{m^2}{m+n}\right)^{1/2}$