1. Which of the following is **not** an assumption of the regression model?

○ The error terms have constant variance
○ The model is linear
○ The error terms are normally distributed
○ The error terms are independent
○ The error terms decrease as *x* values increase

2. Suppose for a given data set the regression equation is: $y = 54.78 + 1.45x$, and the point (0.00, 24.78) is in the data set. The residual for this point is____.

○ 24.78

○ –24.78

○ 0.00

○ 30.00

○ –30.00

3. If the standard error of the estimate for a regression model fitted to a large number of paired observations is 1.75, approximately 68% of the residuals would lie within_____.

○ –3.50 and +3.50
○ –0.95 and +0.95
○ –0.97 and +0.97
○ –0.68 and +0.68
○ –1.75 and +1.75

4. For a regression model $y = 30 - 2x$, the coefficient of determination was determined as equal to 0.81. The coefficient of correlation is

_____.

○ –0.9 ○
0.6561
○ 0.9