1. The Comprehensive Test of Basic Skills (CTBS) is used by school districts to assess student progress. Two of the areas tested are math and reading. A random sample of 20 students' results was reviewed to determine if there is an association between math and reading scores on the CTBS. The regression analysis of the data is below.

Dependent variable: Reading
R squared = 79.2%   R squared (adjusted) = 78.1%
s = 6.574

Source	Sum of Squares	df	Mean Square	F-ratio
Regression	2969.3	1	2969.3	68.7
Residual	777.905	18	43.2169	

Variable	Coefficient	s.e. of Coeff	t-ratio	probability
Constant	5.23273	5.971	0.876	0.3924
Math	0.8658	0.1045	8.29	<0.0001

A) What is the slope for the regression equation?

B) Write the regression equation in context.

C) Interpret the slope in context

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D) What is the correlation coefficient? Interpret in context.

E) State and interpret R-sq in context.

F) State and interpret s (s_e) in context.

2. It is plausible that workers are less likely to quit their jobs when wages are high than when they are low. During 1999 data was gathered from each of 15 companies which gave the average hourly wage and the quit rate (number of employees per 100 who left jobs during 1999). The regression analysis of the data is below.

Dependent variable: Quit rate
R squared = 72.9%   R squared (adjusted) = 70.8%
s = 0.4862

Source	Sum of Squares	df	Mean Square	F-ratio
Regression	8.2507	1	8.2507	34.9
Residual	3.0733	13	0.2364	

Variable	Coefficient	s.e. of Coeff	t-ratio	probability
Wage	-0.3466	0.0586	-5.91	<0.0001
Constant	4.8615	0.5201	9.35	<0.0001

A) What is the slope for the regression equation?

B) Write the regression equation in context.

C) Interpret the slope in context

D) What is the correlation coefficient? Interpret in context.

E) State and interpret R-sq in context.

F) State and interpret s (s_e) in context.