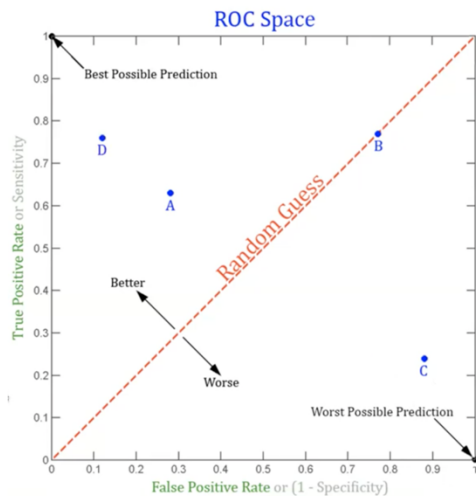# QUIZ 21

What is a histogram?

From the perspective of COVID-19 testing. What is sensitivity? And what is specificity?

What's an ROC curve?

Looking at the ROC space to the left, what is the y-axis (and what does that mean)? What is the x-axis (and what does that mean)? And what's the best predictor: A, B, C, or D?

Here is an output evaluating differences between obese and non-obese patients who have diabetes:

Group Statistics

	PRE_BMI_Obesity_binary	N	Mean	Std. Deviation	Std. Error Mean
PRE_Systolic_blood_pres sure	Not obese	27	127.815	13.2376	2.5476
	Obese	40	128.550	11.0104	1.7409
PRE_Diastolic_blood_pre ssure	Not obese	27	73.259	9.8473	1.8951
	Obese	40	76.150	7.1524	1.1309
PRE_Resting_heart_rate	Not obese	27	79.852	15.2661	2.9380
	Obese	40	76.975	13.6841	2.1637

		Levene's Test for Equality of Variances		Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
PRE_Systolic_blood_pres sure	Equal variances assumed	.767	.384	-.247	65	.806	-.7352	2.9767	-6.6801	5.2097
	Equal variances not assumed			-.238	48.850	.813	-.7352	3.0856	-6.9364	5.4660
PRE_Diastolic_blood_pre ssure	Equal variances assumed	5.643	.020	-1.392	65	.169	-2.8907	2.0762	-7.0371	1.2556
	Equal variances not assumed			-1.310	44.087	.197	-2.8907	2.2069	-7.3382	1.5567
PRE_Resting_heart_rate	Equal variances assumed	.060	.808	.806	65	.423	2.8769	3.5712	-4.2553	10.0090
	Equal variances not assumed			.788	51.710	.434	2.8769	3.6487	-4.4458	10.1195

Explain the difference (and confidence in that difference, i.e., p-value) in systolic blood pressure in these patients.