Monograph On

DIAGNOSTIC TESTS IN STATISTICS

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Example

	Radiologist A	
	Positive	Negative
Radiologist B — Positive	4	5
Radiologist B — Negative	2	6

$$\text{Overall Percent Agreement} = \frac{4 + 6}{4 + 5 + 2 + 6} \times 100 = 58.8\%$$
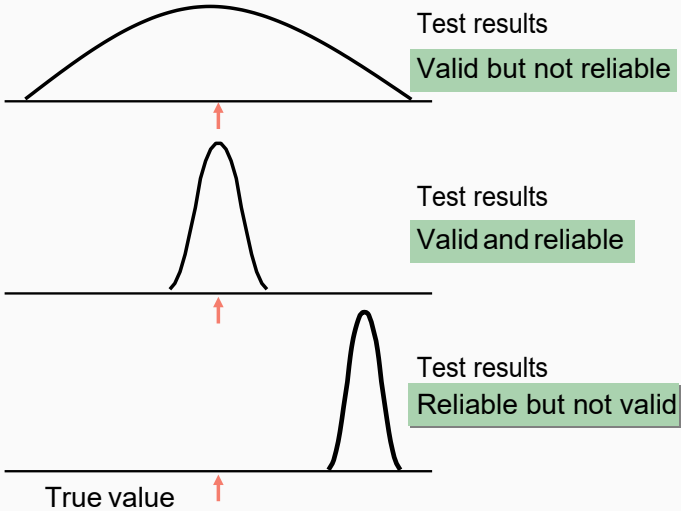
$$\text{Percent Positive Agreement} = \frac{4}{4 + 5 + 2} \times 100 = 36.4\%$$

Observer or Instrument Variation: Overall Percent Agreement

Reading #2	Reading #1			
	Abnormal	Suspect	Doubtful	Normal
Abnormal	A	B	C	D
Suspect	E	F	G	H
Doubtful	I	J	K	L
Normal	M	N	O	P

$$\text{Percent agreement} = \frac{A+F+K+P}{\text{Total}} \times 100$$

Test results
Valid but not reliable

Test results
Valid and reliable

Test results
Reliable but not valid

True value

- Define
  - Overall percent agreement
  - Percent positive agreement
- Contrast overall percent agreement and percent positive agreement