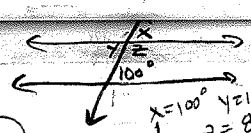
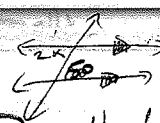
Find the missing ∠s



x=100° y=100°
z=80°

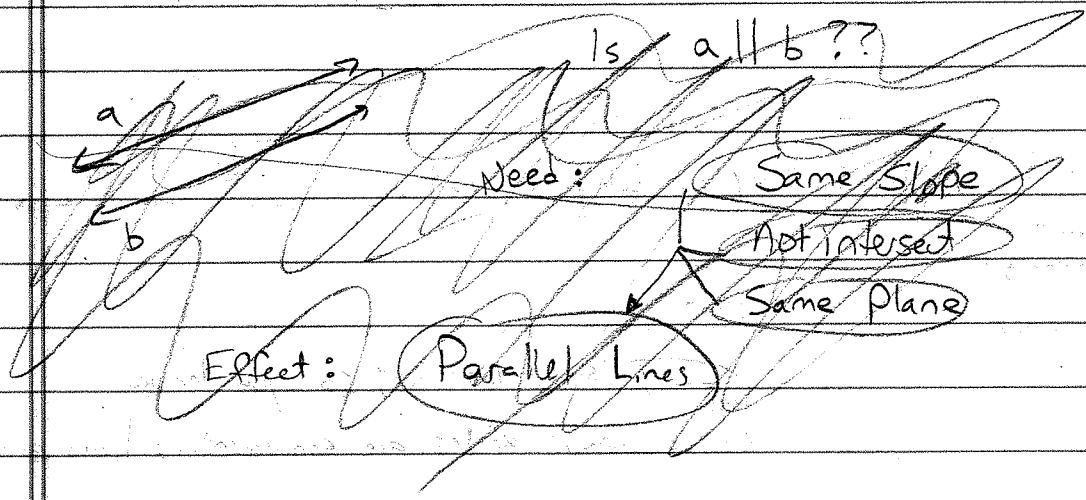


find x 2x=50
x=25

If it is raining, Jacob has an umbrella.

Converse: If Jacob has an umbrella, ~~then it is raining~~

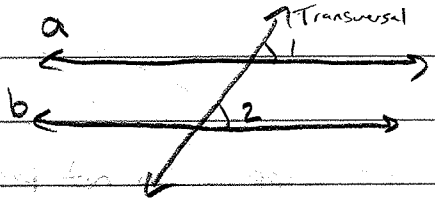
3.3 Prove Lines are Parallel

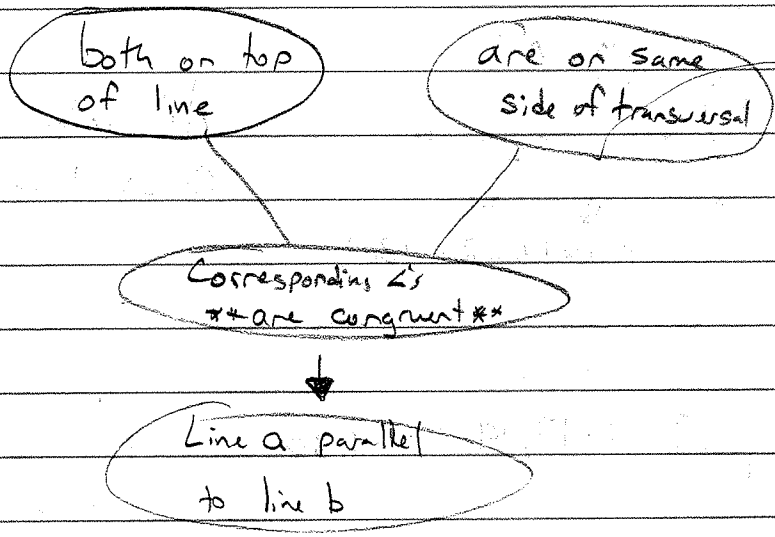


Corresponding ∠s Converse

Original: If two parallel lines are cut by transversal, then Corresponding ∠s are: Congruent

Converse: If two lines are cut by transversal so Corresponding angles are congruent, then the lines are parallel





So, how can we prove lines parallel?

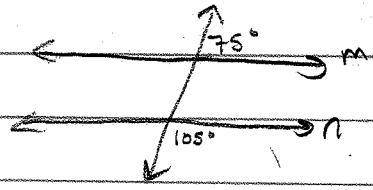
If alt int ∠s are congruent

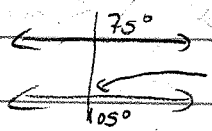
alt ext ∠s are Congruent

Corresponding ∠s are Congruent

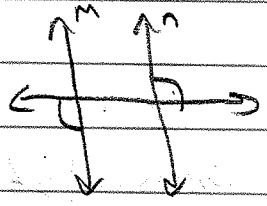
Consecutive interior ∠s are Supplementary

Example - Is $m \parallel n$? Explain why or not.

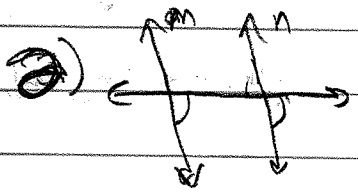
3) 



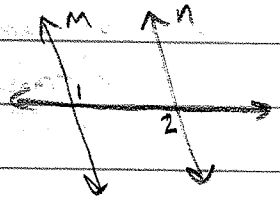
Is $180 - 105 = 75°$, so you have Corresponding angles are congruent ... lines are parallel

4) 

Alternate exterior $\angle$'s are congruent, so $m \parallel n$.

5) 

Corresponding angles are congruent, so $m \parallel n$

6) 

Alt Int $\angle$'s are Supp ... so not parallel.
Consec Interior $\angle$'s must be Supp for parallel

Given $m\angle 1 + m\angle 2 = 180°$

p163: 1-17, 19-21, 29, 30