GEOMETRY
2.2   Conditional Statements

Conditional Statement –

Ex.

Rewrite the following sentences in if-then form.

(1) Two points are collinear if they lie on the same line.

(2) All sharks have a boneless skeleton.

(3) A number is divisible by 9 is also divisible by 3.

Counter Example

*If $x^2 = 16, then\ x = 4$

Converse – Formed by switching the hypothesis and conclusion

Ex If you see lightning, then you hear thunder.

<u>Inverse</u> – Negate the hypothesis and conclusion.

<u>Ex</u> If you see lightning, then you hear thunder.

<u>Contrapositive</u> – Negate and switch the hypothesis and conclusion.

<u>Ex</u> If you see lightning, then you hear thunder.

<u>Ex</u>   Original: If m<A = 30°, then <A is acute

Converse:

Inverse:

Contrapositive:

<u>Ex</u>   Original: If x = 3, then $x^2 = 9$.

Converse:

Inverse:

Contrapositive: