**Course: Geometry**

**Topic: Semester A Exam Review: Part 3**

**Subtopics: Angle addition postulate, substitution property of equality, Subtraction property of equality, and Using the definition of right angles.**

**Document: LIVE Stream 1**

**Reference Number: 2049-12**

*https://youtube.com/c/MrMattTheTutor*

A picture containing sitting, sign, monitor, screen

Description automatically generated

1. Create a two-column proof to justify the following statements using the given information:
   1. Given: The measure of angle ABC is 120 degrees.

Point D is on the interior of angle ABC

Angle ABD is 2X degrees

Angle DBC is 3X degrees

Prove: The measure of angle DBC is 72 degrees

1. Create a two-column proof to justify the following statements using the given information:
   1. Given: Angle ABC is a right angle.

Point D is on the interior of angle ABC

Angle ABD is 4X degrees

Angle DBC is X degrees

Prove: The measure of angle ABD is 72 degrees

1. Create a two-column proof to justify the following statements using the given information:
   1. Given: Angle ABC is a right angle.

Point D is on the interior of angle ABC

Angle ABD is 4X degrees

Angle DBC is 2X degrees

Prove: The measure of angle DBC is 30 degrees

1. Create a two-column proof to justify the following statements using the given information:
   1. Given: ABC is a straight line.

Point D is on the interior of angle ABC

Angle ABD is 7X degrees

Angle DBC is 5X degrees

Prove: The measure of angle ABD is 105 degrees

1. Create a two-column proof to justify the following statements using the given information:
   1. Given: ABC is a straight line.

Point D is on the interior of angle ABC

Angle ABD is 6X degrees

Angle DBC is 2X degrees

Prove: The measure of angle ABD is 135 degrees

1. Create a two-column proof to justify the following statements using the given information:
   1. Given: ABC is a straight line.

Point D is on the interior of angle ABC

Angle ABD is 17X degrees

Angle DBC is 7X degrees

Prove: The measure of angle ABD is 127.5 degrees