### GEOMETRY UNIT 3 REVIEW

Parallel and Perpendicular Lines

Standard 15: Identify parallel, skew, and perpendicular lines and give real-life examples of each. • What are parallel lines? Give 3 real-life examples.

• What are skew lines? Give 3 real-life examples.

• What are perpendicular lines? Give 3 real-life examples.

Standard 16: Identify angles created when a transversal cuts two parallel lines and identify the relationships between those angles. .

- Name a pair of angles which satisfy the following relationships:
  - Alternate Exterior Angles
  - Alternate Interior Angles
  - Vertical Angles
  - Corresponding Angles
  - Consecutive Interior Angles



Standard 17: Use geometric constructions to demonstrate the parallel and perpendicular line postulates.

• Create a line parallel to a given line through a point.

Create a line perpendicular to a given line through a point.

<u>http://www.mathsisfun.com/geometry/constructions.ht</u>
 <u>ml</u>

Standard 18: Identify and use converse postulates and theorems to prove lines parallel.

• What do the following postulates state?
• Converse of corresponding angles postulate
• Converse of alternate interior angles postulate
• Converse of alternate exterior angles postulate
• Converse of consecutive interior angles postulate
• Parallel lines property

## Standard 19: Compute the slope of a line in the coordinate plane.

Find the slope of the line between the two points:
(4, 12) and (8, 24)

• Find the slope of the line with the given equation: • Y = - 34x + 1778090 Standard 20: Identify the relationship between slopes of parallel and perpendicular lines.

• What is the relationship between slopes of parallel lines?

 What is the relationship between slopes of perpendicular lines?

# Standard 21: Write equations of lines in slope-intercept form.

Write an equation given the following circumstances.
 If slope is – 2 and y-intercept is -1.

 $\circ$  If slope is 3 and there is a point (1, 5)

 $\circ$  If there are two points (3, 6) and (2, 0)

Standard 22: Determine if lines are parallel, perpendicular or neither from their equations.

$$\circ$$
 Y = 2x + 6 and y = -2x - 4

$$\circ 2y = 12x + 10$$
 and  $y = -1/6x - 15$ 

$$\circ$$
 Y = 3x - 10 and 3y = 9x + 1

# Standard 23: Write equations in standard form.

• Did not cover will not be on the test.

#### Standard 24: Identify and use perpendicular transversals to prove lines parallel. • What can I tell from the given diagram?

