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| \*Learning Target: |
| \*Critical Content: |

**Parallel lines –**

PARALLEL LINES HAVE THE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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| **Examples** | 1) Write an equation in slope-intercept form for the line that passes through (-3, 5) and is parallel to the graph of . | 1) Through (4, -1) and parallel to |
| Step 1: Find m |  |  |
| Step 2: Write in point-slope form |  |  |
| Step 3: Convert to slope-intercept form |  |  |

**Perpendicular lines –**

PERPENDICULAR LINES HAVE SLOPES THAT ARE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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| **Examples** | 2) Is angle DFE a right angle in the logo? |
|  | Slope of =  Slope of =  Right angle? Explain. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  | 3) Determine whether the graphs of are parallel or perpendicular. Explain.  Slope of : \_\_\_\_\_\_\_\_  Slope of : \_\_\_\_\_\_\_\_  Slope of : \_\_\_\_\_\_\_\_  Which lines are perpendicular? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Which lines are parallel? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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| **Examples** | 4) Ex4: Write an equation in slope-intercept form for the line that passes through (-4, 6) and is perpendicular to the graph of  . | Ex4: Write an equation in slope-intercept form for the line that passes through (4, 7) and is perpendicular to the graph of |
| Step 1: Find m  \*Make sure it is in slope-intercept form first! | Write in slope-intercept form:  Slope of is \_\_\_\_\_\_\_\_\_\_ |  |
| Step 2: Find m of a perpendicular line. | Slope perpendicular to is \_\_\_\_\_\_\_\_\_ |  |
| Step 3: Put it in point-slope form. |  |  |
| Step 4: Convert to slope-intercept form. |  |  |