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| [Image result for quiz](https://www.google.com.au/imgres?imgurl=http://churchfieldsjunior.com/wp-content/uploads/2016/04/73621.jpg&imgrefurl=http://churchfieldsjunior.com/quiz-night/&docid=0TWZ1XmaB2M3GM&tbnid=Yd7kvqdc7hzNIM:&vet=10ahUKEwjgsue_q7jZAhWLurwKHdAtAhkQMwi6AigkMCQ..i&w=700&h=700&bih=963&biw=1920&q=quiz&ved=0ahUKEwjgsue_q7jZAhWLurwKHdAtAhkQMwi6AigkMCQ&iact=mrc&uact=8) | **Year 11 Methods**  **Week 6 Quiz** |  |

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| 1. | Which set of coordinates describes a function?  **A.**  {(- 5, - 1), (- 3, - 3), (- 1, - 5), (- 5, - 7)} **B.**  {( 6,  3), (4,  5), (2,  3), (0,  5)}  **C.**  {( 4, - 3), ( - 4, - 6), ( 4,  3), ( - 4, 6)} **D.**  {( 2, 4), ( 2, - 4), ( 4, 8), ( 6, 2)} | **1** |
| 2. | Make a mapping diagram for the relation.  {(–3, 1), (0, 6), (3, 2), (5, –1)} | **2** |
| 3. | A line passes through the points (1, 2) and (5, 22).   1. Find the gradient of this line. 2. Find the equation of this line. 3. Is (3, 25) on this line? Justify your answer. | **5** |
| 4. | Write the equation of the line that passes through (8, -2) and is perpendicular to 4x – 2y = 9. | **3** |
| 5. | Write the equation of the line that passes through the point (2, 1) and is parallel to y = 4x – 3. | **2** |
| 6. | Explain the following terms using complete sentences and your own words:   1. Domain 2. Range | **2** |
| 7. | Find the reference angle for  radians. | **1** |
| 8. | Find the exact value of:   1. sin 150° 2. tan | **2** |
| 9. | In a circle with radius 10 centimeters, an arc is intercepted by a central angle with measure . Find the arc length. | **2** |
| 10. | A sector of a circle has an area of 25 cm2 and a central angle angle of 0.5 radians. Find its radius and arc length. | **2** |
| 11. | If sinθ < 0 and tanθ > 0, in which quadrant does θ lie? | **1** |
| 12. | The lines 2x + 3y = 12 and 4x + 5y = 20 meet at point P. Find the coordinates of point P. | **3** |