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| **Match-Up** | **Arc Length and Perimeter in Radians** |

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| **1** | Find the arc length in of a sector with radius and angle radians. | **2** | Find the arc length in of a sector with radius and angle radians. | **A** |  |
| **B** |  |
| **3** | Find the radius in cm. | **4** | Find the angle in radians subtended by an arc of length when the radius is . | **C** |  |
| **D** |  |
| **5** | Find the perimeter in of a sector with an angle of radians and a radius of . | **6** | A sector has a perimeter of Given that its radius is , find the angle in radians. | **E** |  |
| **F** |  |
| **7** | The perimeter of a sector with radius is the same as the perimeter of a square with area . Find the angle of the sector in radians. | **8** | Find the perimeter in of a sector with a radius of and an angle of radians. | **G** |  |
| **H** |  |
| **9** | The perimeter of a sector is . If the radius is , find the angle in radians. | **10** | The perimeter of a rectangle of length and width is half the perimeter of a sector with radius . Find the angle of the sector in radians. | **I** |  |
| **J** |  |
| **11** | The perimeter of a sector is . If the angle at the centre of the sector is radians, find its radius in . | **12** | Find the perimeter of the shaded shape in . | **K** |  |
| **L** |  |

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| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |
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