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| --- | --- |
| **Fill in the Blanks** | **Radius and Diameter of a Circle** |

Each circle has a diameter $AB$, a centre $C$ and a radius $r$

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Point A** | **Point B** | **Gradient of AB** | **Equation** **of AB** | **Centre** **C**  | **Radius r**  | **Equation of Circle** |
| $$(3, 4)$$ | $$(-3, -4)$$ |  |  |  | $$5$$ | $$x^{2}+y^{2}=25$$ |
| $$(0, 5)$$ | $$(6, -3)$$ |  |  |  |  |  |
| $$(4, 0)$$ |  |  |  | $$(2, -1)$$ |  |  |
|  | $$(2, -2)$$ |  |  | $$(4, 2)$$ |  |  |
| $$(-12, 4)$$ |  |  |  |  |  | $$(x+9)^{2}+y^{2}=25$$ |
|  |  | $$1$$ |  | $$(1, -1)$$ | $$\sqrt{2}$$ |  |
|  |  |  | $$y=3x-17$$ | $$(4, -5)$$ | $$\sqrt{10}$$ |  |
|  |  |  | $$y=\frac{3}{4}x-\frac{9}{4}$$ |  |  | $$(x+1)^{2}+(y+3)^{2}=100$$ |