Practice worksheet | Functions and straight-line graphs

# Circles and other simple relations

Name: _____ Date: _____

6 questions | 12 marks

**1.** State the centre and radius of $(x-4)^2+(y+1)^2=9$. [2 marks]

**2.** Write the equation of a circle centred at $(-2, 3)$ with radius 5. [2 marks]

**3.** Does $(3, 4)$ lie on $x^2+y^2=25$? Explain. [2 marks]

**4.** Find the x-intercepts of $(x-1)^2+y^2=9$. [2 marks]

**5.** Write the lower semicircle of $x^2+y^2=16$, including domain and range. [2 marks]

**6.** A circular sprinkler reaches 6 m from a nozzle at $(2,1)$ on a metre grid. Give its boundary equation and decide whether $(7,4)$ lies inside. [2 marks]