## 6A Mid-Points of Line Segments

1. Find the midpoint of this pair of points:
a) $(2,3)$ and $(6,9)$
b) $(2 a,-4 b)$ and $(7 a, 8 b)$
2. $A B$ is a diameter of a circle, where $A$ and $B$ are the coordinates $(-3,8)$ and $(5,4)$ respectively. Find the coordinates of the centre of the circle.
3. $P Q$ is a diameter of a circle, centre $(2,-2)$. Given that $P$ is $(8,-5)$, find the coordinates of $Q$.
