Answer Sheet 1

1.   a) $x \in [-2,3)$ b) $x \in (1,2) \cup (2,3)$

2.   a) $x \in [-\infty,0] \cup [\tfrac{1}{2},\infty]$ b) $x \in [-\infty,-1) \cup (-\tfrac{1}{3},0) \cup (0,\infty]$

3.   a) $x \in (-4,1) \cup (1,\infty]$ b) $x \in [-\infty,-\tfrac{3}{2}) \cup (\tfrac{1}{3},\infty]$

4.   a) $x \in [-4,-2]$ b) $x \in \left(-\tfrac{5}{2},-\tfrac{1}{3}\right)$

5.   a) $x \in [-\infty,-1) \cup (0,\infty]$ b) $x \in [\infty,0) \cup (0,\tfrac{1}{4})$

6.   a) $y = 10x - 24$ b) $y = \tfrac{5}{4}x - 5$

7.   a) $y = \tfrac{5}{2}x - \tfrac{23}{2}$ b) $y = 2x + 9$

8.   a) They are.   b) k=1

9.   a) $y = -3x + 6$ b) $x + 3y = 7$

10.   a) $(x-3)^2 + (y-5)^2 = 4$ b) $(x+2)^2 + (y-3)^2 = 50$

11.   a) $(x+2)^2 + y^2 = 25$ b) $(x+1)^2 + (y-3)^2 = 5$

12.   a) k=-12   b) $(x-5)^2 + (y-3)^2 = 18$