## Transformations : Enlargements

| 1.  | Find the image of $(1,1)$ , $(2,1)$ , $(1,3)$ when enlarged by scale factor 2, centre the origin.                  |     |
|-----|--|-----|
|     | (2, 2), (4, 2), (2,  | 6)  |
| 2.  | Find the image of $(1, -1)$ , $(1, 1)$ , $(2, 0)$ when enlarged by scale factor $-1$ , centre $(-1, 1)$            | ).  |
|     | (-3,3),(-3,1),(-4,   | 2)  |
| 3.  | Find the image of $(1, 5)$ , $(3, 5)$ , $(3, 3)$ when enlarged by scale factor $-2$ , centre $(1, 1)$ .            |     |
|     | (1, -7), (-3, -7), (-3, -7)  | 3)  |
| 4.  | Find the image of (4, 4), (6, 6), (2, 8) when enlarged by scale factor $\frac{1}{2}$ , centre (-2, -2).            |     |
| 5.  | Find the image of $(-8, 8)$ , $(-8, 6)$ , $(-7, 8)$ when enlarged by scale factor $-3$ , centre $(-6, 8)$          | 5). |
|     |  |     |
| 6.  | Find the image of $(-2, 2)$ , $(-2, -2)$ , $(2, 2)$ , $(2, -2)$ when enlarged by scale factor – centre $(1, -2)$ . | -2, |
| 7.  | Find the image of $(a, b)$ when enlarged by scale factor 2, centre $(0, 0)$ .                                      |     |
| 8.  | Find the image of $(a, b)$ when enlarged by scale factor $-3$ , centre $(0, 0)$ .                                  |     |
| 9.  | Find the image of $(a, b)$ when enlarged by scale factor 2, centre $(1, 1)$ .                                      |     |
| 10. | Find the image of $(a, b)$ when enlarged by scale factor k, centre $(0, 0)$ .                                      |     |
| 11. | Find the image of $(a, b)$ when enlarged by scale factor 3, centre $(c, d)$ .                                      |     |