

### Answers

1. (i)  $(\pm 2\sqrt{2}, 0); (\pm 3, 0); 6; 2; \frac{2\sqrt{2}}{3}; \frac{2}{3}$       (ii)  $(\pm\sqrt{7}, 0); (\pm 4, 0); 8; 6; \frac{\sqrt{7}}{4}; \frac{9}{2}$

(iii)  $(0, 10\sqrt{3}); (0, \pm 20); 40; 20; \frac{\sqrt{3}}{2}; 10$       (iv)  $(0, \pm 12); (0, \pm 13); 26; 10; \frac{12}{13}; \frac{50}{13}$

2. (i)  $25x^2 + 9y^2 = 225$

(ii)  $\frac{x^2}{16} + \frac{y^2}{7} = 1$

(iii)  $\frac{x^2}{75} + \frac{y^2}{100} = 1$

(iv)  $\frac{x^2}{25} + \frac{y^2}{34} = 1$

(v)  $\frac{x^2}{25} + \frac{y^2}{34} = 1$

3.  $25x^2 + 45y^2 = 1296$

4.  $\frac{2\sqrt{2}}{3}$

5.  $\frac{x^2}{18} + \frac{y^2}{9} = 1$