Conics 9 – Ellipses

Put each of the following ellipses into standard form. Then graph each, be sure to label all important points.

1. $16x^2 + 25y^2 = 400$
2. $169x^2 + 25y^2 = 4225$
3. $9x^2 + 25y^2 + 18x - 891 = 0$
4. $9x^2 + 25y^2 + 36x - 150y + 36 = 0$
5. $289x^2 + 64y^2 - 1734x + 640y - 14295 = 0$
6. $25x^2 + 16y^2 - 150x - 128y + 81 = 0$
7. $9x^2 + 25y^2 + 36x - 50y - 1964 = 0$
8. $16x^2 + 25y^2 + 224x - 300y - 8316 = 0$
9. $289x^2 + 225y^2 + 1734x + 1350y - 61074 = 0$
10. $9x^2 + 25y^2 - 36x + 350y + 361 = 0$
11. $36x^2 + 49y^2 + 144x - 441y - 627\frac{3}{4} = 0$
12. $81x^2 + 25y^2 - 756x + 33\frac{1}{3}y - 249\frac{8}{9} = 0$
13. $289x^2 + 64y^2 + 1445x - 576y - 15393.75 = 0$
14. $37.21x^2 + 1.21y^2 + 327.448x - 5.566y + 681.7624 = 0$
15. $25x^2 + 97y^2 + 250x - 388y - 1412 = 0$
16. $3x^2 + 2y^2 - 16.2x + 27.6y - 32.91 = 0$
17. $169x^2 + 25y^2 - 1757.6x + 170y + 633.76 = 0$
18. $68x^2 + 123y^2 + 408x - 1476y - 3324 = 0$
19. $575x^2 + 1325y^2 - 10925x + 12985y + 53232 = 0$
20. $85x^2 + 37y^2 - 867x + 81.4y - 889.38 = 0$
21. $4x^2 + y^2 - 53\frac{1}{3}x + 9y + 90\frac{1}{36} = 0$
22. $5x^2 + 4y^2 - 52\frac{1}{2}x + 60y - 357\frac{3}{16} = 0$
23. $x^2 + 50y^2 - 8x - 600y + 1716 = 0$
24. $44x^2 + 55y^2 + 642.4x + 297y + 1535.71 = 0$
25. $22x^2 + 123y^2 + 378.4x - 738y + 28.12 = 0$
26. $14000x^2 + 1300y^2 + 42000x + 17940y - 88607 = 0$
27. $1521x^2 + 6400y^2 + 12776\frac{2}{5}x - 64000y - 83569\frac{14}{25} = 0$
28. $13689x^2 + 11664y^2 + 90347.4x + 100310.4y - 1231944.39 = 0$
29. $143x^2 + 107y^2 + 2431x - 1690\frac{3}{5}y + 1708\frac{31}{50} = 0$
30. $84x^2 + 193y^2 - 1528\frac{4}{5}x - 1672\frac{2}{3}y - 5631\frac{191}{225} = 0$

