Answers to Unit 10 Conic Sections Review

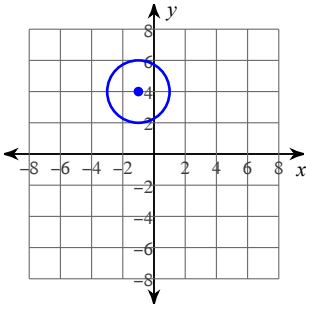
1) Hyperbola

2) Parabola

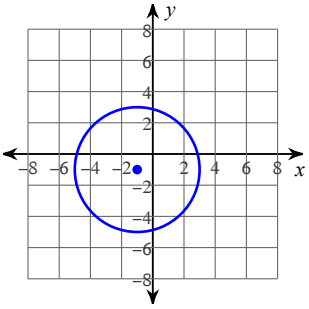
3) Circle

4) Ellipse

5)



6)



7) $(x+6)^2+(y+14)^2=4$

8) $(x+14)^2+(y+5)^2=9$

9) $(x-3)^2+(y-14)^2=4$

10) $(x-13)^2+(y+11)^2=4$

11) $(x+12)^2+(y+6)^2=49$

12) $(x+12)^2+(y-6)^2=39$

13) $\frac{1}{3}(y-5)=x^2$

14) $-\frac{1}{2}(y-10)=(x+5)^2$

15) $\frac{1}{2}(x+1)=(y-4)^2$

16) $-4(x+1)=(y-9)^2$

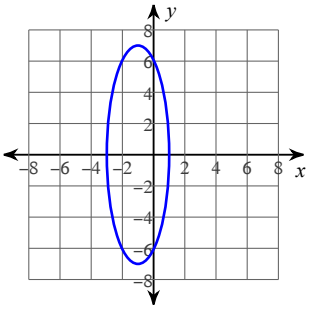
17) $11(y-7)=(x-9)^2$

18) $\frac{1}{11}(x-1)=(y-3)^2$

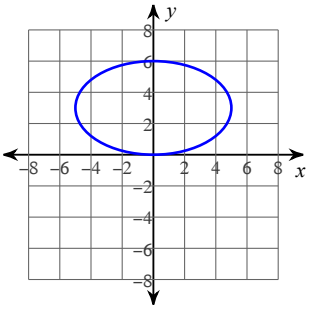
19) $x=2(y+5)^2+8$

20) $y=2(x-8)^2-5$

21)



22)



23) $\frac{(x-7)^2}{144}+\frac{(y+9)^2}{169}=1$

24) $\frac{x^2}{100}+\frac{(y+5)^2}{121}=1$

25) $\frac{(x-6)^2}{25}+\frac{(y-1)^2}{9}=1$

26) $\frac{(x+7)^2}{9}+\frac{(y-6)^2}{25}=1$

27) $\frac{(x-6)^2}{25}+\frac{(y-9)^2}{16}=1$

28) $\frac{(x-6)^2}{25}+\frac{(y-9)^2}{9}=1$

29) $\frac{(x-1)^2}{36}+\frac{(y-9)^2}{9}=1$

30) $\frac{(x+9)^2}{144}+\frac{(y+1)^2}{9}=1$

31) Center: $(9, 6)$
Vertices: $(9, 12), (9, 0)$
Foci: $(9, 6+6\sqrt{5}), (9, 6-6\sqrt{5})$
Asym.: $y=\frac{1}{2}x+\frac{3}{2}$
$y=-\frac{1}{2}x+\frac{21}{2}$

32) Center: $(6, -8)$
Vertices: $(18, -8), (-6, -8)$
Foci: $(6+3\sqrt{17}, -8), (6-3\sqrt{17}, -8)$
Asym.: $y=\frac{1}{4}x-\frac{19}{2}$
$y=-\frac{1}{4}x-\frac{13}{2}$

33) $\frac{(y-9)^2}{100}-\frac{(x+7)^2}{100}=1$

34) $\frac{(y-6)^2}{90}-\frac{(x-2)^2}{10}=1$