Type	Equation	Solved for Y	D	R	Keywords	
Ellipse	$\frac{x^2}{121}+\frac{y^2}{441}=1$	$y=\pm\sqrt{441\left(1-\frac{x^2}{121}\right)}$	all reals	-13.617≤y≤-4.56	Head: Main Face	
Parabola	$y=\frac{9}{144}x^2-18$	$y=\frac{9}{144}x^2-18$	X≤-3.086	y≤-13.559	Head: Chin	
Parabola	$y=\frac{9}{144}x^2-18$	$y=\frac{9}{144}x^2-18$	X≥3.086	y≤-13.559	Head: Chin	
Parabola	$y=\frac{-1}{121}x^2+8$	$y=\frac{-1}{121}x^2+8$	-11≤x≤11	All reals	Head: Hairline	
Parabola	$y=\frac{-31}{729}x^2-17$	$y=\frac{-31}{729}x^2-17$	-3.09≤x≤3.09	All reals	Head: Chin 2	
Ellipse	$\frac{x^2}{121}+\frac{(y-7)^2}{55}=1$	$y=7\pm\sqrt{25-\frac{55x^2}{121}}$	all reals	Y≥7	Head: Top of Hair	
Line	$x=11$	*undefined*	all reals	1≤ y≤7	Head: Side 1 of Face	
Line	$x=-11$	*undefined*	all reals	1≤ y≤7	Head: Side 2 of Face	
Hyperbola	$\frac{x^2}{100}-\frac{(y+2)^2}{300/7}=1$	$y=\pm\sqrt{\frac{-300}{7}\left(1-\frac{x^2}{100}\right)}-2$	all reals	1≥y≥-5	Ear: Head intersect	
Ellipse	$\frac{(x-11)^2}{4}+\frac{(y+2)^2}{9}=1$	$y=\pm\sqrt{9-\frac{9(x-11)^2}{4}}-2$	x≥11	Y≥-2	Ear: Right Ellipse	
Ellipse	$\frac{(x-11)^2}{4}+\frac{(y+2)^2}{9}=1$	$y=\pm\sqrt{9-\frac{9(x-11)^2}{4}}-2$	x≥11	Y≤-4.645	Ear: Right Ellipse	
Parabola	$y=\frac{7}{25}(x-8)^2-9$	$y=\frac{7}{25}(x-8)^2-9$	X ≥ 11	-2 ≥y ≥ -4.645	Ear: Right Parabola	
Ellipse	$\frac{(x+11)^2}{4}+\frac{(y+2)^2}{9}=1$	$y=\pm\sqrt{9-\frac{9(x+11)^2}{4}}-2$	X≤-11	Y≥-2	Ear: Left Ellipse	
Ellipse	$\frac{(x+11)^2}{4}+\frac{(y+2)^2}{9}=1$	$y=\pm\sqrt{9-\frac{9(x+11)^2}{4}}-2$	X≤-11	Y≤-4.645	Ear: Left Ellipse	
Parabola	$y=\frac{7}{25}(x+8)^2-9$	$y=\frac{7}{25}(x-8)^2-9$	X ≤ -11	-2 ≥y ≥ -4.645	Ear: Left Parabola	
Line	y=3x	y=3x	all reals	0 ≥ y ≥ -6	Nose: Bridge	
Circle	$(y+6)^2+x^2=4$	$y=\pm\sqrt{(4-x^2)}-6$	all reals	y≤-6	Nose: Bulb	
Ellipse	$\frac{(x+4.5)^2}{20.25}+\frac{y^2}{9}=1$	$y=\pm\sqrt{9-\frac{9(x+4.5)^2}{20.25}}$	all reals	Y≥2	Eye: Right bottom ellipse	
Ellipse	$1=\frac{(x+4.5)^2}{20.25}+\frac{(y-4)^2}{9}$	$y=\pm\sqrt{9-\frac{9(x+4.5)^2}{20.25}}+4$	all reals	Y≤2	Eye: Right top ellipse	
Circle	$(x+4.5)^2+(y-2)^2=1$	$y=2\pm\sqrt{1-(x+4.5)^2}$	all reals	All reals	Eye: Right pupil	
Ellipse	$\frac{(x-4.5)^2}{20.25}+\frac{y^2}{9}=1$	$y=\pm\sqrt{9-\frac{9(x-4.5)^2}{20.25}}$	all reals	Y≥2	Eye: Left bottom ellipse	
Ellipse	$\frac{(x-4.5)^2}{20.25}+\frac{(y-4)^2}{9}=1$	$y=\pm\sqrt{9-\frac{9(x-4.5)^2}{20.25}}+4$	all reals	Y≤2	Eye: Left top ellipse	
Circle	$(x-4.5)^2+(y-2)^2=1$	$y=2\pm\sqrt{1-(x-4.5)^2}$	all reals	All reals	Eye: Left pupil	
Ellipse	$\frac{(x+5.75)^2}{3.0625}+\frac{(y-3.5)^2}{20.25}=1$	$y=3.5\pm\sqrt{20.25\left(1-\frac{(x+5.75)^2}{3.0625}\right)}$	X ≤ -6	3.057 ≤ y ≤ 4.251	Eyebrow: Right brow right barrier	
Ellipse	$\frac{(x+2.25)^2}{3.0625}+\frac{(y-3.5)^2}{20.25}=1$	$y=3.5\pm\sqrt{20.25\left(1-\frac{(x+2.25)^2}{3.0625}\right)}$	X ≥ -2	2.579 ≤ y ≤ 3.375	Eyebrow: Right brow left barrier	
Ellipse	$\frac{(x+4.5)^2}{20.25}+\frac{(y-2)^2}{9}=1$	$y=2\pm\sqrt{9-\frac{9(x+4.5)^2}{20.25}}$	-7.475 ≤ x ≤ -0.5	Y ≥ 3.374	Eyebrow: Right brow outer edge	
Ellipse	$\frac{(x+4.5)^2}{20.25}+\frac{(y-1.75)^2}{3.0625}=1$	$y=1.75\pm\sqrt{3.0625-\frac{3.0625(x+4.5)^2}{20.25}}$	-7.492 ≤ x ≤ -0.53	Y ≥ 2.579	Eyebrow: Right brow inner edge	
Ellipse	$\frac{(x-5.75)^2}{3.0625}+\frac{(y-3.5)^2}{20.25}=1$	$y=3.5\pm\sqrt{20.25\left(1-\frac{(x-5.75)^2}{3.0625}\right)}$	X ≥ 6	3.057 ≤ y ≤ 4.251	Eyebrow: Left brow right barrier	
Ellipse	$\frac{(x-2.25)^2}{3.0625}+\frac{(y-3.5)^2}{20.25}=1$	$y=3.5\pm\sqrt{20.25\left(1-\frac{(x-2.25)^2}{3.0625}\right)}$	X ≤ 2	2.579 ≤ y ≤ 3.375	Eyebrow: Left brow left barrier	
Ellipse	$\frac{(x-4.5)^2}{20.25}+\frac{(y-2)^2}{9}=1$	$y=2\pm\sqrt{9-\frac{9(x-4.5)^2}{20.25}}$	7.475 ≥ x ≥ 0.5	Y ≥ 3.374	Eyebrow: Left brow outer edge	
Ellipse	$\frac{(x-4.5)^2}{20.25}+\frac{(y-1.75)^2}{3.0625}=1$	$y=1.75\pm\sqrt{3.0625-\frac{3.0625(x-4.5)^2}{20.25}}$	7.492 ≥ x ≥ 0.537	Y ≥ 2.579	Eyebrow: Left brow inner edge	
Ellipse	$\frac{(y+14)^2}{16}+\frac{(x+1.5)^2}{30.25}=1$	$y=-14\pm\sqrt{16-\frac{16(x+1.5)^2}{30.25}}$	-4.235 ≤ x ≤ 0	Y ≥ -10.529	Lip: Upper Right	
Ellipse	$\frac{(y+14)^2}{16}+\frac{(x-1.5)^2}{30.25}=1$	$y=-14\pm\sqrt{16-\frac{16(x-1.5)^2}{30.25}}$	0 ≤ x ≤ 4.235	Y ≥ -10.529	Lip: Upper Left	
Ellipse	$\frac{(y+7)^2}{16}+\frac{x^2}{81}=1$	$y=-7\pm\sqrt{16-\frac{16x^2}{81}}$	-4.235 ≤ x ≤ 4.235	Y ≤ -10.529	Lip: Middle	
Ellipse	$\frac{(y+9)^2}{16}+\frac{x^2}{21}=1$	$y=-9\pm\sqrt{16-\frac{16x^2}{21}}$	-4.235 ≤ x ≤ 4.235	Y ≤ -10.529	Lip: Lower	