12.3: (Hyperbolas)

The equation of one of the asymptotes of the hyperbola with vertices at $(\pm 2,0)$ and eccentricity $e = 2$, is A) $y = -\sqrt{3}x$ B) $y = \frac{\sqrt{3}}{3}x$ C) $y = -\frac{\sqrt{3}}{2}x$ D) $y = \frac{2\sqrt{3}}{3}x$ E) $y = -\frac{1}{2}x$	The equation of a Hyperbola.
The equation of one of the asymptotes of the hyperbola $9x^2 - 4y^2 - 18x + 24y - 63 = 0$, is A) $3x + 2y - 9 = 0$ B) $3x - 2y - 3 = 0$ C) $3x + 2y - 3 = 0$ D) $2x - 3y + 7 = 0$ E) $2x + 3y - 7 = 0$	The equation of a Hyperbola.

One of the foci of the hyperbola with vertices at $(9,-2)$ and $(-7,-2)$, and eccentricity $e=\frac{5}{4}$, is A) $(-9,-2)$ B) $(-4,-2)$ C) $(-11,-2)$ D) $(6,-2)$ E) $(12,-2)$	The equation of a Hyperbola.
Let P be any point on the hyperbola $81x^2+162x-4y^2+16y+29=0$ with foci F_1 and F_2, If PF_1 and PF_2 are respectively the distances from P to F_1 and from P to F_2, then $\lvert PF_2-PF_1\rvert=$ A) 8 B) 3 C) $\frac{2}{3}$ D) $\frac{4}{3}$ E) 6	The equation of a Hyperbola.
A hyperbola with center $(2,7)$ is passing through the point $(4,5)$ and has one asymptote with slope 2 and its tranverse axis is horizontal. Its equation is A) $4x^2-16x-y^2+14y-45=0$ B) $4x^2+16x-y^2+14y+81=0$ C) $4x^2-8x-y^2+14y-54=0$ D) $4x^2-4x-y^2+6y-144=0$ E) $4y^2+8y-x^2+14x-54=0$	The equation of a Hyperbola.

The asymptote with positive slope of the hyperbola $x^2 - 25y^2 - 2x - 100y - 124 = 0$ is A) $5y - x + 11 = 0$ B) $5x - y - 7 = 0$ C) $5y - x - 7 = 0$ D) $5x - y + 7 = 0$ E) $5x - y + 6 = 0$	The equation of a Hyperbola.
The eccentricity of the hyperbola given by $9y^2 - 36x^2 - 4 = 0$ is (a) $\frac{\sqrt{5}}{2}$ (b) $\frac{\sqrt{3}}{2}$ (c) $\frac{\sqrt{17}}{4}$ (d) $\frac{1}{2}$ (e) $\frac{3}{2}$	The equation of a Hyperbola.
The equation of the hyperbola with center $(1, -2)$, one focus at $(-2, -2)$ and one vertex at $(-1, -2)$, is A) $5(x-1)^2 - 4(y+2)^2 = 20$ B) $4(y+2)^2 - 5(x-1)^2 = 20$ C) $4(y-2)^2 - 5(x+1)^2 = 20$ D) $4(x-1)^2 = 5(y+2)^2 = 20$ E) $5(x+1)^2 - 4(y-2)^2 = 20$	The equation of a Hyperbola.