

[Submitting HW Tips](#)**HW #2**

1 Section 2.1: #1(c), 9, 15, 18.

2 Section 2.2: #4, 10(a)(c), 16(a)(c), 18, 19, 28(a)(b).

3 First, find the **general solution** to $\frac{dy}{dx} = \frac{8x^2 - y^2}{xy}$ ($x > 0$), and then solve this **IVP** :

$$\begin{cases} \frac{dy}{dx} = \frac{8x^2 - y^2}{xy} \\ y(1) = 2 \end{cases} .$$

4 Solve this differential equation: $\frac{dy}{dx} = \frac{y + \sqrt{x^2 - y^2}}{x}$ ($x > 0$).