

Gr. Math 7th Grade - HW 12, October 21-2022, Mr. Alexandropoulos

Please submit your answers on a separate piece of paper! Please do not use tablets!

$$1. (x^2 - 3y^3) \cdot \left(\frac{1}{3}xy^2 - \frac{1}{9}y^2 - \frac{2}{3}x^2\right) =$$

$$2. (2x - y + xy)(-xy^2 - 3xy^3 + 2y\frac{x^3}{3}) =$$

$$3. -3x^4(2x - 3y - 1) - 2x^4(-x + y + \frac{1}{2}) =$$

$$4. -2xy^2(x^2 - y^2 + xyz) - \frac{1}{2}xy^2(2x^2 + 4y^2 - 8xyz) =$$

$$5. 4x^2zy^2\left(\frac{1}{2}xy^2 - \frac{1}{4}yx^2 - \frac{1}{8}z\right) - x^2zy^2(xy^2 - yx^2 + z) =$$

$$6. (x - y^2)(x - y - z) - (x - y^2)(2x - 3y + 3z) =$$

$$7. -3\alpha\beta\gamma(-3\alpha^2 - 4\beta^3 - 1) + \alpha\beta\gamma(\alpha^2 + \beta^2 - \frac{1}{2}) =$$

$$8. (x - 1)(2x - y + 4) - (x - 1)\left(3x + \frac{y}{2} + \frac{1}{2}\right) =$$

$$9. (x + y - xy)\left(-\frac{1}{2}zx^2\right) + (x + 3y - 4xy) \cdot \left(-\frac{4}{3}xz\right) =$$

$$10. (x - y)(x^2 + xy + y^2) =$$