Task #1:

Simplify $\frac{a^{2}-b^{2}}{a+b}$

Task #2:

Expand and simplify. (x3 + 3x2 – 2x + 5)(x - 7)

Task #3:

Using the remainder theorem, decide whether x-5 and x+2 are factors of the polynomial

f(x) = 2x3 – 5x2 – 28x + 15.

Task #4:

Identify the zeros of f(x) = -x2 – 3x + 4.

Task #5:

Simplify: $\sqrt{x+2}$ + $\sqrt{4x+8.}$

Task #6:

By factoring, find the zeros of f(x) = x2 + 3x – 4.

Task #7:

Rewrite the equation y = x2 – 2x + 3 in vertex form. Find the minimum value.

Task #8.

For all real numbers x, (3x + 2)(2x – 5) = ax2 + kx + n. Find the values of a, k, and n.