

Algebra 10-2 Investments and Polynomials

In 1-5, simplify the expressions.

- $(2x^2 + 3x + 4) + (5x^2 + 2x + 10)$ _____
- $(3x^4 - 2x) - (5x^4 - 10x)$ _____
- $(6x + 8x^3 - 2) - (2x^3 + 5 - 3x^3)$ _____
- $(x^3 - 2x^2 + 5x) + (2x^3 - 4x^2 - 7x + 8)$ _____
- $(9x^4 - 2x) + (6x - 3x^2) - (4x^4 - 7x^2)$ _____
- What is the perimeter of a square whose sides are $(4n^2 + 2n - 6)$? _____
- What is the perimeter of a rectangle whose length is $3x^2$ and width is $8x + 2$? _____
- On my son's 1st birthday, his grandparents have him \$200. Each birthday they gave him \$50 more than the previous year. If I invested the money in an account (unlike the truth were I spent it on myself) that earned 8% each year, how much money would my son have in the account after his 5th birthday?

- Joe and Tom each get \$500 from their parents for Christmas. Joe puts his into an account that earns him 7% interest. Tom puts his in his piggy bank, which obviously earns him 0% interest. After the 4th year of getting such a nice present,
 - how much money does Joe have? _____
 - how much money does Tom have? _____
 - how much more did Joe have than Tom since Joe invested his money? _____