1.0 review of skills

using pascals triangle to expand

$$1$$
$$11$$
$$121$$
$$1331$$
$$14641$$
$$15101051$$

$$a)(1+h)^5$$
$$1(1^5)(h^0) + 5(1^4)(h^1) + 10(1^3)(h^2) + 10(1^2)(h^3) + 5(1^1)(h^4) + 1(1^0)(h^5)$$
$$1 + 5h + 10h^2 + 10h^3 + 5h^4 + h^5$$

$$b)(2x+1)^4$$
$$(2x)^4 + 4(2x)^3 + 6(2x)^2 + 4(2x) + 1$$
$$16x^4 + 32x^3 + 24x^2 + 8x + 1$$

factoring rules

- difference of squares
- factor by more efficient "aussie" decomposition
- factor out common parts
- factor theorem. . .
- factor greater factors by grouping

stating the domain and range of a function determine the zeros of a function,