

21. a) $(f + g + h)(x) = 2x^2 + 3x - 19$ b) $(f - g + h)(x) = 2x^2 - x - 11$
 c) $(f \cdot g)(x) = 2x^3 - 2x^2 - 16x + 24$ d) $(g \cdot h)(x) = 2x^3 - 4x^2 - 18x + 36$
 e) $(f - h - i)(x) = -3x^2 + x + 15$ f) $\left(\frac{f}{g}\right)(x) = \frac{x+3}{2}, (x \neq 2)$
 g) $\left(\frac{f \cdot g}{i}\right)(x) = \frac{2(x+3)(x-2)}{3(x+2)}, (x \neq \pm 2)$ h) $\left(\frac{g \cdot h}{f}\right)(x) = 2(x - 3), (x \neq \{-3, 2\})$

22. The condominium association of a building establishes the following fees to be charged to each of its condo owners.
- Monthly condo fees: \$225
 - Monthly fees for renovations: \$80
 - Municipal taxes paid at the beginning of the year: \$1500
- a) Determine the rule of the function f which gives the cost y of condo fees as a function of the number x of months. $y = 225x$
- b) Determine the rule of the function g which gives the total cost y of renovation fees and municipal taxes as a function of the number x of months. $y = 80x + 1500$
- c) Determine the rule of the function $f + g$ and interpret this rule. $y = 305x + 1500$
 $f + g$ gives the total fees charged to a condo owner as a function of the number x of months.
- d) What is the total amount of fees paid by a condo owner after 8 months of occupancy?
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