

14. $f(0) = 0^2 + 2(0) = 0$; $f(3) = 3^2 + 2(3) = 9 + 6 = 15$; $f(-3) = (-3)^2 + 2(-3) = 9 - 6 = 3$;
 $f(a) = a^2 + 2(a) = a^2 + 2a$; $f(-x) = (-x)^2 + 2(-x) = x^2 - 2x$;
 $f\left(\frac{1}{a}\right) = \left(\frac{1}{a}\right)^2 + 2\left(\frac{1}{a}\right) = \frac{1}{a^2} + \frac{2}{a}$.
16. $h(1) = (1) + \frac{1}{(1)} = 2$; $h(-1) = (-1) + \frac{1}{-1} = -1 - 1 = -2$; $h(2) = 2 + \frac{1}{2} = \frac{5}{2}$;
 $h\left(\frac{1}{2}\right) = \frac{1}{2} + \frac{1}{\frac{1}{2}} = \frac{1}{2} + 2 = \frac{5}{2}$; $h(x) = x + \frac{1}{x}$; $h\left(\frac{1}{x}\right) = \frac{1}{x} + \frac{1}{\frac{1}{x}} = \frac{1}{x} + x$.
18. $f(0) = 0^3 - 4(0)^2 = 0 + 0 = 0$; $f(1) = 1^3 - 4(1)^2 = 1 - 4 = -3$;
 $f(-1) = (-1)^3 - 4(-1)^2 = -1 - 4 = -5$; $f\left(\frac{3}{2}\right) = \left(\frac{3}{2}\right)^3 - 4\left(\frac{3}{2}\right)^2 = \frac{27}{8} - 9 = -\frac{45}{8}$;
 $f\left(\frac{x}{2}\right) = \left(\frac{x}{2}\right)^3 - 4\left(\frac{x}{2}\right)^2 = \frac{x^3}{8} - x^2$; $f(x^2) = (x^2)^3 - 4(x^2)^2 = x^6 - 4x^4$.
20. $f(-2) = \frac{|-2|}{-2} = \frac{2}{-2} = -1$; $f(-1) = \frac{|-1|}{-1} = \frac{1}{-1} = -1$; $f(x)$ is not defined at $x = 0$;
 $f(5) = \frac{|5|}{5} = \frac{5}{5} = 1$; $f(x^2) = \frac{|x^2|}{x^2} = \frac{x^2}{x^2} = 1$ since $x^2 > 0, x \neq 0$; $f\left(\frac{1}{x}\right) = \frac{\left|\frac{1}{x}\right|}{\frac{1}{x}} = \frac{x}{|x|}$.