

חחעל!

$$1. f: \mathbb{R} \rightarrow \mathbb{R} \quad f(x + g(y)) = 2x + y + 5$$

מצאו ביטוי מפורש עבור $g(x + f(y))$

$$2. f: \mathbb{R} \rightarrow \mathbb{R} \quad f(x) + f\left(\frac{x-1}{x}\right) = 1 + x, \forall x \neq 0, 1$$

$$3. f: \mathbb{R} \rightarrow \mathbb{R} \quad f(x + f(f(y))) = y + f(f(x))$$

$$4. f: \mathbb{R} \rightarrow \mathbb{R} \quad f(f(x) + f(y)) + f(f(x)) = 2f(x) + y$$

$$5. f: \mathbb{R} \rightarrow \mathbb{R} \quad f(x^2 + yf(z)) = xf(x) + zf(y)$$

$$6. f: \mathbb{R} \rightarrow \mathbb{R} \quad f(f(x) + y) = 2x + f(f(y) - x)$$

$$7. f: \mathbb{R} \rightarrow \mathbb{R} \quad f(xf(y) + x) = xy + f(x)$$

$$8. f: \mathbb{R} \rightarrow \mathbb{R} \quad f(x - f(y)) = f(x) - 2xf(y) + f(f(y)) - 1$$

$$9. f: \mathbb{R}^+ \rightarrow \mathbb{R}^+ \quad f\left(\frac{f(x)}{y}\right) = yf(y) \cdot f(f(x))$$

$$10. f: \mathbb{R}^+ \rightarrow \mathbb{R}^+ \quad f(f(x) + xf(y)) = xy + f(x)$$

$$11. f: \mathbb{R}^+ \rightarrow \mathbb{R}^+ \quad f(f(x) + y) = xf(1 + xy)$$

$$12. f: \mathbb{R}^+ \rightarrow \mathbb{R}^+ \quad f(x + f(x) + f(y)) = x + f(x + y)$$

בתאבון!