LB-06 – Functions and procedures

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| 1 | 2 |
| **function** fun(x: real): real;  **begin**  result := x \*\* 6 \* (x - 5) \*\* 3 / (2 \* x + 1) \*\* 5  **end**;  **begin**  fun(10).Print  **end**.  30.6064908776742 | **function** fun(x: real): real;  **begin**  **if** (x >= -2) **and** (x < 2) **then**  result := x \*\* 2  **else**  **if** x >= 2 **then**  result := x \*\* 2 + 4 \* x + 5  **else**  result := 1  **end**;  **begin**  **for var** x := -3 **to** 3 **do**  println(x, fun(x))  **end**.  -3 1  -2 4  -1 1  0 0  1 1  2 17  3 26 |
| 3 | 4 |
| **function** a(x: real): real;  **begin**  result := 3 \* x \*\* (7 / 9) + tan(x + 3) \*\* -1  **end**;  **function** z(x: real): real;  **begin**  result := 2 \* x \*\* (3 / 2) + tan(x + 2) \*\* -1  **end**;  **function** y(x: real): real;  **begin**  result := (tan(x) \*\* -1 - tan(z(x)) \*\* -1) / (tan(a(x)) \*\* -1 + tan(x) \*\* -1) - tan(z(x)) \*\* -1  **end**;  **begin**  y(2).Print  **end**.  3.59902982359085 | **function** a(i: integer): real;  **begin**  result := i \*\* 2 + cos(-i + (2 \* i + 3) \*\* (1 / 3))  **end**;  **function** f(a: real): real;  **begin**  **if** a < 5 **then**  result := 1 / a  **else**  **if** (a > 5) **and** (a <= 35) **then**  result := 1 + 2 \* a \*\* -3  **else**  result := 25 \*\* (1 / sqrt(a))  **end**;  **function** z(a: real): real;  **begin**  result := f(a) \*\* 2 / sin(a) + 1 / a  **end**;  **begin**  **for var** i := 1 **to** 10 **do**  println(i, z(a(i)))  **end**.  1 0.897907473242297  2 0.158421414556934  3 -5.47282090141461  4 -11.2942909140051  5 -1.13702257009735  6 -5.95610096483213  7 -2.49539850253986  8 2.27912596686888  9 6.52941399630125  10 17.0671926834187 |