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Definición de seis funciones reales de variable real:

$b(x) = x^3$ ,  $c(x) = 2x$ ,  $r(x) = x+4$ ,  $s(x) = x:3$ ,  $t(x) = x-1$ ,  $u(x) = x^2+x$

|   | <b>A</b>                  | <b>B</b>                         | <b>C</b>                  | <b>D</b>                  | <b>E</b>                  |
|---|---------------------------|----------------------------------|---------------------------|---------------------------|---------------------------|
| ① | $(b+c)(2)$                | $(r-s)(9)$                       | $(u/t)(0)$                | $(b \circ c)(1)$          | $(c \circ b)(1)$          |
|   |                           |                                  |                           |                           |                           |
| ② | $(b+r)(-2)$               | $(c \cdot s)(-6)$                | $(u-t)(1)$                | $(t \circ b)(2)$          | $(b \circ t)(2)$          |
|   |                           |                                  |                           |                           |                           |
| ③ | $(r+s)(-3)$               | $(u-t)(2)$                       | $(b-sr)(0)$               | $(c \circ r)(8)$          | $(r \circ c)(8)$          |
|   |                           |                                  |                           |                           |                           |
| ④ | $(ac+r+t)(2)$             | $(s/r)(-3)$                      | $(c \circ c \circ c)(3)$  | $(s \circ b)(3)$          | $(b \circ s)(3)$          |
|   |                           |                                  |                           |                           |                           |
| ⑤ | $(u \circ u \circ u)(-1)$ | $(s \circ r \circ s \circ r)(2)$ | $(b+s)(-3)$               | $(c \circ s)(30)$         | $(s \circ c)(30)$         |
|   |                           |                                  |                           |                           |                           |
| ⑥ | $(u \circ r)(-2)$         | $(r \circ u)(-2)$                | $(b \circ c \circ r)(-3)$ | $(r \circ c \circ b)(-3)$ | $(c \circ r \circ b)(-3)$ |
|   |                           |                                  |                           |                           |                           |
| ⑦ | $(u \circ (b+c))(1)$      | $(u \circ b+c)(1)$               | $(u \circ (bc))(-1)$      | $((ub) \circ c)(-1)$      | $(u \circ c \circ b)(-1)$ |
|   |                           |                                  |                           |                           |                           |
| ⑧ | $(t+r+s)(6)$              | $(trs)(6)$                       | $(t \circ r \circ s)(6)$  | $(tr+s)(6)$               | $((tr) \circ s)(6)$       |
|   |                           |                                  |                           |                           |                           |
| ⑨ | $(u \circ u \circ u)(1)$  | $(u \circ (u+u))(1)$             | $((u+u) \circ u)(1)$      | $(u \circ (t+s))(3)$      | $(c \circ u+s)(-3)$       |
|   |                           |                                  |                           |                           |                           |
| ⑩ | $((r-t) \circ b)(10)$     | $((r-t) \circ b)(10^9)$          | $(t \circ (r+s))(-3)$     | $((c+r) \circ (c+r))(-2)$ | $(s \circ (r+t))(9)$      |
|   |                           |                                  |                           |                           |                           |

## Soluciones

|   | <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> | <b>E</b> |
|---|----------|----------|----------|----------|----------|
| ① | 12       | 10       | 0        | 8        | 2        |
| ② | -6       | 24       | 2        | 7        | 1        |
| ③ | 0        | 5        | 0        | 24       | 20       |
| ④ | 39       | -1       | 24       | 9        | 1        |
| ⑤ | 0        | 2        | -28      | 20       | 20       |
| ⑥ | 6        | 6        | 8        | -50      | -46      |
| ⑦ | 12       | 4        | 6        | -16      | 2        |
| ⑧ | 17       | 100      | 5        | 52       | 6        |
| ⑨ | 42       | 20       | 12       | 12       | 11       |
| ⑩ | 5        | 5        | -1       | -2       | 7        |