

**Enunciados**

Escribe las siguientes expresiones del modo más sencillo posible.

①  $(2\sqrt{11})\sqrt{11}$

②  $\sqrt{3}(2+7\sqrt{27})$

③  $(5+3\sqrt{2})(4-7\sqrt{2})$

④  $(5+3\sqrt{5})^2$

⑤  $(4-7\sqrt{3})^2$

⑥  $(1+3\sqrt{7})(1-3\sqrt{7})$

⑦  $(2+\sqrt{3})^4$

⑧  $(2-7\sqrt{5})^2 + (1+8\sqrt{5})^2$

⑨  $(2+3\sqrt{11})(-2+4\sqrt{11}) + (5-\sqrt{11})^2$

⑩  $(4+\sqrt{13})(4-\sqrt{13}) + (2-\sqrt{17})(2+\sqrt{17})$

⑪  $(2\sqrt{13})\sqrt{13}$

⑫  $\sqrt{5}(1-\sqrt{125})$

⑬  $(7-2\sqrt{3})(2-5\sqrt{3})$

⑭  $(2+7\sqrt{2})^2$

⑮  $(5-2\sqrt{3})^2$

⑯  $(4-5\sqrt{2})(4+5\sqrt{2})$

⑰  $(1-\sqrt{5})^4$

⑱  $(4-\sqrt{3})^2 + (5+3\sqrt{3})^2$

⑲  $(-1+4\sqrt{13})(2+3\sqrt{13}) + (5-2\sqrt{13})^2$

⑳  $(1+\sqrt{5})(1-\sqrt{5}) + (4-\sqrt{13})(4+\sqrt{13})$

㉑  $(1+\sqrt[4]{2})(1-\sqrt[4]{2})(1+\sqrt{2})$

㉒  $(1+\sqrt[4]{3})^2 + \sqrt[4]{3}(\sqrt[4]{3}-2)$

㉓  $\frac{(\sqrt{3}+1)^2}{4} + \frac{3(3-\sqrt{3})^2}{4}$

㉔  $(\sqrt{3}+\sqrt{10})^2 + (\sqrt{2}-\sqrt{15})^2$

㉕  $\frac{(3+\sqrt{8})(3-\sqrt{8})}{(4-\sqrt{15})(4+\sqrt{15})}$

## Soluciones

- ① 22
- ②  $2\sqrt{3} + 63$
- ③  $-22 - 23\sqrt{2}$
- ④  $70 + 30\sqrt{5}$
- ⑤  $163 - 56\sqrt{3}$
- ⑥ -62
- ⑦  $97 + 56\sqrt{3}$
- ⑧  $570 - 12\sqrt{5}$
- ⑨  $164 - 8\sqrt{11}$
- ⑩ -10
- ⑪ 26
- ⑫  $\sqrt{5} - 25$
- ⑬  $44 - 39\sqrt{3}$
- ⑭  $102 + 28\sqrt{2}$
- ⑮  $27 - 20\sqrt{3}$
- ⑯ -34
- ⑰  $56 - 24\sqrt{5}$
- ⑱  $71 + 22\sqrt{3}$
- ⑲  $231 - 15\sqrt{13}$
- ⑳ -1
- ㉑ -1
- ㉒  $1 + 2\sqrt{3}$
- ㉓  $10 - 4\sqrt{3}$
- ㉔ 30
- ㉕ 1