

Рассмотрим решение
примеров №420 (а, б,
в, г, д)

№420 е)

$$\begin{aligned} \text{е) } (\sqrt{12} + 2\sqrt{18}) \cdot \sqrt{2} - \sqrt{96} &= \sqrt{12} \cdot \sqrt{2} + \\ &+ 2\sqrt{18} \cdot \sqrt{2} - \sqrt{96} = \sqrt{4 \cdot 3 \cdot 2} + 2\sqrt{9 \cdot 2 \cdot 2} - \\ &- \sqrt{2^4 \cdot 3 \cdot 2} = 2\sqrt{6} + 2 \cdot 3 \cdot 2 - 2^2 \sqrt{6} = 2\sqrt{6} + \\ &+ 12 - 4\sqrt{6} = 12 - 2\sqrt{6}. \end{aligned}$$

№419(а, б)

$$\begin{aligned} \text{а) } \sqrt{8p} - \sqrt{25} + \sqrt{18p} &= \sqrt{4 \cdot 2p} - 5 + \sqrt{9 \cdot 2p} = \\ &= 2\sqrt{2p} - 5 + 3\sqrt{2p} = 5\sqrt{2p} - 5; \\ \text{б) } \sqrt{16c} + 2\sqrt{40c} - 3\sqrt{90c} &= 4\sqrt{c} + 2\sqrt{4 \cdot 10c} - \\ &- 3\sqrt{9 \cdot 10c} = 4\sqrt{c} + 2 \cdot 2\sqrt{10c} - 3 \cdot 3\sqrt{10c} = 4\sqrt{c} + \\ &+ 4\sqrt{10c} - 9\sqrt{10c} = 4\sqrt{c} - 5\sqrt{10c}; \end{aligned}$$

$$\begin{aligned} \text{а) } (\sqrt{12} + \sqrt{15}) \cdot \sqrt{3} &= \sqrt{12} \cdot \sqrt{3} + \sqrt{15} \cdot \sqrt{3} = \sqrt{4 \cdot 3 \cdot 3} + \\ &+ \sqrt{3 \cdot 5 \cdot 3} = 2 \cdot 3 + 3\sqrt{5} = 6 + 3\sqrt{5}; \end{aligned}$$

$$\begin{aligned} \text{б) } \sqrt{5}(3\sqrt{5} + 5\sqrt{8}) &= \sqrt{5} \cdot 3\sqrt{5} + 5\sqrt{5} \cdot \sqrt{8} = 3\sqrt{5 \cdot 5} + \\ &+ 5\sqrt{5 \cdot 8} = 3 \cdot 5 + 5\sqrt{4 \cdot 10} = 15 + 5 \cdot 2\sqrt{10} = 15 + 10\sqrt{10}; \end{aligned}$$

$$\begin{aligned} \text{в) } (4\sqrt{3} - 2\sqrt{6}) \cdot 2\sqrt{3} &= 4\sqrt{3} \cdot 2\sqrt{3} - 2\sqrt{6} \cdot 2\sqrt{3} = 8 \cdot 3 - \\ &- 2 \cdot 2\sqrt{3 \cdot 2} \cdot 2 \cdot 3 = 24 - 4 \cdot 3\sqrt{2} = 24 - 12\sqrt{2}; \end{aligned}$$

$$\begin{aligned} \text{г) } (3\sqrt{5} - 2\sqrt{3}) \cdot \sqrt{5} + \sqrt{60} &= 3\sqrt{5} \cdot \sqrt{5} - 2\sqrt{3} \cdot \sqrt{5} + \\ &+ \sqrt{4 \cdot 15} = 3 \cdot 5 - 2\sqrt{15} + 2\sqrt{15} = 15; \end{aligned}$$

$$\begin{aligned} \text{д) } (\sqrt{28} - 2\sqrt{3} + \sqrt{7}) \cdot \sqrt{7} + \sqrt{84} &= \sqrt{28} \cdot \sqrt{7} - 2\sqrt{3} \cdot \sqrt{7} + \\ &+ \sqrt{7} \cdot \sqrt{7} + \sqrt{21 \cdot 4} = \sqrt{4 \cdot 7 \cdot 7} - 2\sqrt{21} + 7 + 2\sqrt{21} = \\ &= 7 \cdot 2 + 7 = 21; \end{aligned}$$

