

Simplifying Radicals: Perfect Square

Simplify

① $\sqrt{25m^2}$

② $\sqrt{121x^{16}}$

③ $\sqrt{9x^2}$

④ $\sqrt{64w^{12}}$

⑤ $-\sqrt{100a^4}$

⑥ $\sqrt{a^6b^{10}}$

⑦ $\sqrt{625y^{64}}$

⑧ $\sqrt{441}$

⑨ $\sqrt{15a}$

⑩ $\sqrt{49y^4m^{100}}$

⑪ $\sqrt{a^2b^4}$

⑫ $\sqrt{\frac{16a^2y^4}{m^{16}}}$

⑬ $\sqrt{\frac{81}{36}}$

⑭ $\sqrt{\frac{x^4}{y^4l^{10}}}$

⑮ $\sqrt{196a^4}$

⑯ $\sqrt{729a^{12}b^{16}}$

⑰ $\sqrt{\frac{900}{225}}$

⑱ $\sqrt{\frac{361a^4}{121b^4}}$

Simplifying Radicals: Perfect Square

Answers

① $\sqrt{25m^2}$

$5m$

④ $\sqrt{64w^{12}}$

$8w^6$

⑦ $\sqrt{625y^{64}}$

$25y^{32}$

⑩ $\sqrt{49y^4m^{100}}$

$7y^2m^{50}$

⑬ $\sqrt{\frac{81}{36}}$

$\frac{3}{2}$

⑯ $\sqrt{729a^{12}b^{16}}$

$27a^6b^8$

② $\sqrt{121x^{16}}$

$11x^8$

⑤ $-\sqrt{100a^4}$

$-10a^2$

⑧ $\sqrt{441}$

21

⑪ $\sqrt{a^2b^4}$

ab^2

⑭ $\sqrt{\frac{x^4}{y^4l^{10}}}$

$\frac{x^2}{y^2l^5}$

⑰ $\sqrt{\frac{900}{225}}$

2

③ $\sqrt{9x^2}$

$3x$

⑥ $\sqrt{a^6b^{10}}$

a^3b^5

⑨ $\sqrt{15a}$

$\sqrt{15} \sqrt{a}$

⑫ $\sqrt{\frac{16a^2y^4}{m^{16}}}$

$\frac{4ay^2}{m^8}$

⑮ $\sqrt{196a^4}$

$14a^2$

⑱ $\sqrt{\frac{361a^4}{121b^4}}$

$\frac{19a^2}{11b^2}$