

SPIRRAL #4

NAME:

7th Grade

Simplify the radicals.

① $\sqrt{20}$

② $\sqrt{108}$

③ $\sqrt{64}$

④ $\sqrt{150}$

⑤ $\sqrt{147}$

⑥ $\sqrt{30}$

⑦ $\sqrt{162}$

⑧ $\sqrt{192}$

Simplify the powers.

$$1) a^2 \cdot (a^5)^{-1}$$

$$2) \frac{x}{x^5 \cdot x^7}$$

$$3) (a^2 b^5)^3$$

$$4) \frac{y^{-4} \cdot y^{-2}}{y^{-3}}$$

$$5) \frac{(c^2)^{-3}}{(c^4)^{-1}}$$

$$6) \frac{(m^{-4})^{-1}}{m^3}$$

Evaluate the expression for the given value of the variable.
show your work

① $2(x+y)$
when $x = -4$ and $y = -9$

② $-4(x-y)$
when $x = -5$ and
 $y = 3$

③ $3x^2$ when $x = -4$

④ $3x^3$ when $x = -2$

⑤ $-x^2 + x$ when
 $x = -3$

⑥ $-x^3 + x$ when
 $x = -3$

Compute. Show work.

$$\textcircled{1} 2\frac{3}{5} + 3\frac{1}{2}$$

$$\textcircled{2} 4\frac{1}{2} - 3\frac{1}{4}$$

$$\textcircled{3} 2\frac{4}{7} + \frac{3}{4}$$

$$\textcircled{4} 1\frac{1}{2} - \frac{1}{3}$$

$$\textcircled{5} \frac{3}{8} + 6\frac{2}{3}$$

$$\textcircled{6} 24\frac{1}{2} - 15\frac{1}{4}$$