

Name: _____

Radical Form and Exponential Form

A) Write each of the following in radical form.

1) $50^{\frac{1}{8}}$

2) $16^{\frac{2}{3}}$

3) $89^{\frac{3}{2}}$

4) $35^{\frac{7}{4}}$

5) $78^{\frac{4}{9}}$

6) $26^{\frac{9}{5}}$

B) Write each of the following in exponential form.

1) $\sqrt[8]{93^5}$

2) $(\sqrt{31})^9$

3) $\sqrt[5]{22^7}$

4) $\sqrt[3]{7^5}$

5) $(\sqrt[9]{63})^8$

6) $(\sqrt[7]{49})^4$

Radical Form and Exponential Form

A) Write each of the following in radical form.

1) $50^{\frac{1}{8}}$

$\sqrt[8]{50}$

2) $16^{\frac{2}{3}}$

$\sqrt[3]{16^2}$ or $(\sqrt[3]{16})^2$

3) $89^{\frac{3}{2}}$

$\sqrt{89^3}$ or $(\sqrt{89})^3$

4) $35^{\frac{7}{4}}$

$\sqrt[4]{35^7}$ or $(\sqrt[4]{35})^7$

5) $78^{\frac{4}{9}}$

$\sqrt[9]{78^4}$ or $(\sqrt[9]{78})^4$

6) $26^{\frac{9}{5}}$

$\sqrt[5]{26^9}$ or $(\sqrt[5]{26})^9$

B) Write each of the following in exponential form.

1) $\sqrt[8]{93^5}$

$93^{\frac{5}{8}}$

2) $(\sqrt{31})^9$

$31^{\frac{9}{2}}$

3) $\sqrt[5]{22^7}$

$22^{\frac{7}{5}}$

4) $\sqrt[3]{7^5}$

$7^{\frac{5}{3}}$

5) $(\sqrt[9]{63})^8$

$63^{\frac{8}{9}}$

6) $(\sqrt[7]{49})^4$

$49^{\frac{4}{7}}$