

Study Guide (no calculators)

1) Simplify the following expressions and show your work.

a) $5^2 =$

b) $(-2)^3 =$

c) $(-3)^2 =$

d) $(-11)^0 =$

e) $4^{-2} =$

f) $x^5 \cdot x^3 =$

g) $\frac{x^7}{x^3} =$

h) $(x^3)^4 =$

i) $(3x)^2 =$

j) $\left(\frac{x}{5}\right)^3 =$

2) Simplify the following radicals using properties of radicals.

a) $\sqrt{36} =$

b) $\sqrt{18} =$

c) $\sqrt[3]{24} =$

d) $\sqrt{\frac{12}{25}} =$

e) $\frac{2}{\sqrt{3}} =$

3) Evaluate the following expressions.

a) $27^{1/3} =$

b) $32^{3/5} =$

c) $\left(\frac{9}{25}\right)^{3/2} =$

d) $\sqrt[3]{-27} =$

e) $\left(\frac{1}{81}\right)^{3/4} =$