

Name Key
Mrs. RoumbosDate _____
8A Period _____

Homework

Simplify:

1) $|6-10| + 3|-5| =$

$| -4 | + 3 | -5 |$

$4 + 3 \cdot 5$

$4 + 15 = \boxed{19}$

4) $-\sqrt{16} =$

$-(4)$

$\boxed{-4}$

2) $-|-2 \cdot 5| =$

$-|-10|$

$-(10)$

$\boxed{-10}$

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

$\boxed{-3}$

3) $\sqrt{\frac{100}{225}} = \frac{\sqrt{100}}{\sqrt{225}} = \boxed{\frac{10}{15}}$

6) $\sqrt[3]{\frac{64}{216}} = \frac{\sqrt[3]{64}}{\sqrt[3]{216}} = \boxed{\frac{4}{6}}$

For #'s 7-11 your answer should be in scientific notation

7) $\frac{(5.6 \times 10^{-4})}{(2.24 \times 10^{-5})} = \boxed{2.5 \times 10^1}$

8) $(6.2 \times 10^{-3})(3.17 \times 10^7) =$
 $\boxed{1.9654 \times 10^5}$

9) $(2.6 \times 10^5) - (3.6 \times 10^4) =$
 $\boxed{2.24 \times 10^5}$

10) $(5.3 \times 10^7) + (8 \times 10^7) =$
 $\boxed{1.33 \times 10^8}$

**11) About 1.37×10^7 people live in South Africa. English is the primary language for about 3.7×10^6 of these people. The rest speak it as a secondary language. In scientific notation, about how many speak English as a secondary language?

$(1.37 \times 10^7) - (3.7 \times 10^6) =$

$\boxed{1 \times 10^7}$

**12) The land area of Connecticut is about 4.8×10^3 square miles. The land area of New Mexico is about 1.2×10^5 square miles. About how many times greater is the land area of New Mexico than the land area of Connecticut?

→ means to divide

$\frac{(1.2 \times 10^5)}{(4.8 \times 10^3)} = 2.5 \times 10^1 = \boxed{25 \text{ times}}$