

Name _____

Date _____

Final Exam Review F

Math 8

1. Solve for y . Write in slope intercept form: $y = mx + b$

a) $3y = 12x - 9$

b) $-2y = 4x + 10$

c) $y + \frac{1}{2}x = 6$

d) $6y - 2x = 24$

e) $4x + 8y = 16$

f) $-y - 7 = 3x$

g) $5y = 2x + 30$

h) $-7y = -7x - 14$

i) $35x - 70y = 140$

j) $16y + 32 = -4x$

k) $50y = 100x - 250$

2. Write in scientific notation.

a) 432,000

b) 5,170

c) 968,000,000

d) 123

e) 0.0014

f) 0.022

g) 0.000000039

h) 0.877

3. Write in standard form.

a) 2.6×10^6

b) 1.37×10^4

c) 5.4×10^3

d) 7.777×10^7

e) 1.78×10^{-5}

f) 9.6×10^{-4}

g) 4.58×10^{-7}

h) 3.22×10^{-6}

4. Perform the indicated operation.

a) $(3.4 \times 10^5) + (1.2 \times 10^4)$

b) $(1.98 \times 10^3) + (5.7 \times 10^2)$

c) $(7.65 \times 10^{-2}) + (6.02 \times 10^{-1})$

d) $(8.8 \times 10^{-3}) + (5.5 \times 10^{-4})$

e) $(2.46 \times 10^6) - (1.03 \times 10^6)$

f) $(7.9 \times 10^5) - (3.22 \times 10^4)$

g) $(4.1 \times 10^{-4}) - (2.6 \times 10^{-5})$

h) $(5.67 \times 10^{-3}) - (3.4 \times 10^{-6})$

i) $(2.4 \times 10^6)(1.3 \times 10^5)$

j) $(7.25 \times 10^4)(4.4 \times 10^4)$

k) $(3.67 \times 10^{-5})(1.4 \times 10^{-3})$

l) $(8.1 \times 10^{-6})(6 \times 10^{-5})$

m) $(1.44 \times 10^{10}) \div (1.2 \times 10^4)$

n) $(2.8 \times 10^7) \div (1.4 \times 10^2)$

o) $(3.69 \times 10^6) \div (3 \times 10^{-4})$

p) $(5.65 \times 10^{-3}) \div (5 \times 10^{-7})$

5. A TV show had 3.5×10^6 viewers for their first episode and 8.5×10^6 viewers for their second episode. How many viewers did they have overall?
6. In 2013 the Los Angeles Dodgers opening day payroll was about $\$2.16 \times 10^8$ and the Houston Astros opening day payroll was about $\$2.4 \times 10^7$. How much higher was the Dodgers' payroll?
7. The population of Crowded Tom is 4×10^6 and the population of Empty Village is 8×10^3 . How many times the population of Empty Village is Crowded Town?
8. A corporation earned a profit of $\$2.5 \times 10^4$ for 1×10^3 days in a row. What was the corporation's total profit during this time period?
9. In 2012, the population of New York State (NY) was about 2×10^7 and the population of the State of Oregon (OR) was about 4×10^7 .
- A. How many times the population of OR is NY?
- B. How many more people live in NY than OR?