# Lesson 79 • Transforming Formulas

***Power Up***

- ***Facts***
- ***Mental Math***
- ***Problem Solving***

***New Concepts***

- ***Examples***
- ***Practice Set***

***Written Practice***



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**Facts** Simplify and express in scientific notation.

| | | |
|---|---|---|
| $(2 \times 10^6)(3 \times 10^4)$<br>$6 \times 10^{10}$ | $(4 \times 10^5)(6 \times 10^4)$<br>$2.4 \times 10^{10}$ | $(2.5 \times 10^3)(3 \times 10^{-6})$<br>$7.5 \times 10^{-3}$ |
| $(4 \times 10^{-3})(2 \times 10^{-4})$<br>$8 \times 10^{-7}$ | $(5 \times 10^{-5})(3 \times 10^{-4})$<br>$1.5 \times 10^{-8}$ | $(2.4 \times 10^{-4})(2 \times 10^6)$<br>$4.8 \times 10^2$ |

| | | | |
|---|---|---|---|
| $\frac{6 \times 10^8}{3 \times 10^5}$<br>$2 \times 10^3$ | $\frac{5 \times 10^4}{2 \times 10^8}$<br>$2.5 \times 10^{-4}$ | $\frac{4.2 \times 10^{-3}}{2 \times 10^3}$<br>$2.1 \times 10^{-6}$ | $\frac{2.4 \times 10^5}{4 \times 10^{-3}}$<br>$6 \times 10^7$ |



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## Written Practice

1. 15%
2. 81
3. 125%
4. $r = \frac{C}{2\pi}$
5. a. $\{R_1R_1, R_1R_2, R_1B, R_2R_1, R_2R_2, R_2B, BR_1, BR_2, BB\}$
   b. $\frac{1}{9}$
6. a. $55\frac{5}{9}\%$
   b. $0.\overline{5}$
   c. closer to $\frac{1}{2}$
7. trapezoid, 40 $m^2$
8. $x = 20$
9. $x = 1$
10. $x = 6$
11. $x = -8$
12. $3\sqrt{10}$
13. $2\sqrt{10}$



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## Written Practice *continued*

**14.** 7

**15.** $2m^4$

**16.** parallelogram, 65 $ft^2$

**17.** $\frac{50¢}{min} \cdot \frac{\$1}{100¢} \cdot \frac{60\ min}{1\ hr}$ = $30 per hour

**18.** no

**19.** $x = 5$, $y = 7\frac{1}{2}$

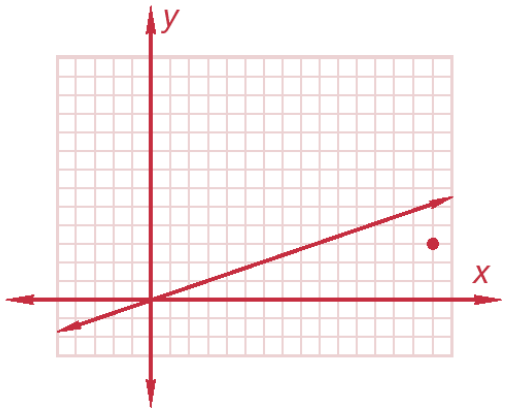
**20.** 314 $ft^3$

**21.** 12 $yd^3$

**22.** 36 $cm^3$

**23.** 30 pounds

**18.**




**24.** $x \geq 4$

**25.** a. B

b. Sample: Point Z is the center of rotation, so its location will not change



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