Lesson: Rearranging Formulas

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| Example 1  A = L x w, solve for L | Example 2  P = 2L + 2w, solve for w |
| Example 3  C = 2∏r, solve for r | Example 4  y = mx + b, solve for m |
| Example 5  A = s2, solve for s |  |

**Practice: Rearranging Formulas  
Substitute, then solve for the unknown variable:**

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| a. y = mx + b; y = 10, m = 3, b = 4 | b. I = Prt; I = $30, P = $1000, t=0.5years |
| c. P = 2(l+w); P = 100m, l=30m | d. S = ; S=120km/h, t=4h |

**Rearrange each formula for the indicated variable.**

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| e. y = mx + b, solve for x | f. I = Prt, solve for r | g. S = , solve for d |
| h. P = 2(l+w), solve for l | i. x2 + y2 = r2, solve for x | j. A = P(1 + rt), solve for r |
| k. It is not safe for an adult to surpass her or his maximum heart rate. This maximum heart rate, M, in beats per minute (bpm), is modeled by the equation M=230 – 1.2A, where A is the age of the adult in years. | | |
| Rearrange to solve for A. | At what age should a person’s maximum exercising heart rate be 194 bpm? 134 bpm? | |
| l. The cost, C, in dollars, of producing a school yearbook is given by the formula C=S+4n, where S is the setup cost, and n is the number of yearbooks printed. | | |
| Solve the formula for n. | If the set-up cost is $925, how many yearbooks can be printed? If S=$1500? | |
| ANSWERS: a) x=2, b) r=0.06 (6%), w=20m, d) d=480kkm, e) x=, f) r=, g) d=st, h)l = , i) x=, j)r=, k) A=:30yrs:80yrs, l)n=:143 yrbks | | |