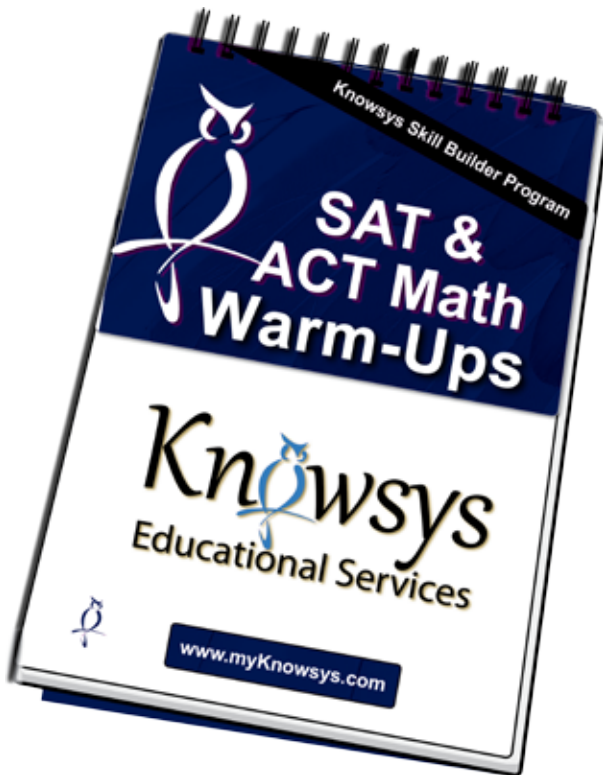


SAT & ACT Math Flip-Top Books

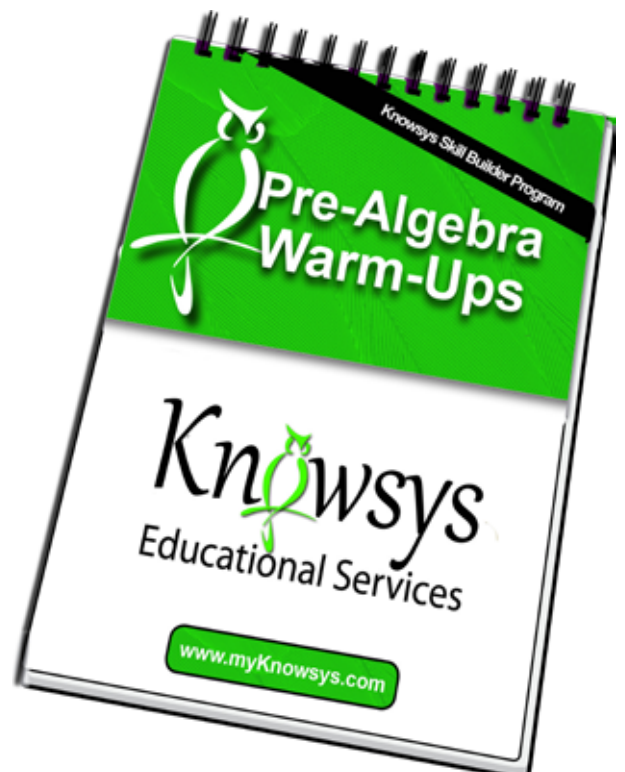


SAT and ACT Math Edition

- Ideal as a cumulative review for the SAT
- Highest math contained is basic functions
- Contains:
 - * **50 Pre-Algebra problems**
Combinations, descriptive statistics, percents, permutations, ratios, and sequences
 - * **50 Algebra problems**
Equations, exponents, functions, quadratics, and roots
 - * **50 Geometry problems**
Circles, coordinate geometry, triangles, and lines and angles

Pre-Algebra Edition

- Ideal for use in middle school
- Contains **150 Pre-Algebra Problems**:
 - * Number Properties
 - * Exponents and square roots
 - * Ratios, proportions, & percents
 - * Absolute value
 - * Linear equations
 - * Probability
 - * Counting methods
 - * Charts, tables, and graphs
 - * Descriptive statistics



Knowsys SAT & ACT Math

Sample Pages

Knowsys Math Warm-Ups
SAT-ACT

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Algebra

Knowsys Math Warm-Ups
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Warm-Up #144

Given that a and b are positive integers and $a > b$, if $24\sqrt{24} = a\sqrt{b}$ which of the following could be the value of $\frac{a}{b}$?

- (A) $\frac{1}{8}$
(B) 1
(C) 6
(D) 8
(E) 48

Always simplify first:

$$24\sqrt{24} = 48\sqrt{6}$$

So $a = 48$ and $b = 6$

$$\frac{a}{b} = \frac{48}{6} = 8$$

Difficulty:
Medium

Your answer:
D

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Pricing Information

- Portable flip-top book (4.5" x 5.5")
- Student edition = \$10.00 + S&H
Minimum order quantities apply.
- Teacher edition = \$13.00 + S&H

Warm-Up #124

The function f is defined by $f(a) = 4(2a^3 - 4)$.
 When $f(a) = -80$, what is the value of $3a$?

- (A) -6.9
 (B) -6
 (C) 4.6
 (D) 5.2
 (E) 6

$$-80 = 4(2a^3 - 4)$$

$$-20 = 2a^3 - 4$$

$$-16 = 2a^3$$

$$-8 = a^3$$

$$-2 = a$$

$$3a = 3(-2) = -6$$

Difficulty:
Medium

Your answer:
B

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Algebra

Pre-Algebra

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Warm-Up #74

If $x + 4y$ is equivalent to 120% of $5y$, what is the value
 of $\frac{x}{y}$?

Translate and solve:

$$x + 4y = 1.2(5y)$$

$$x + 4y = 6y$$

$$x = 2y$$

$$\frac{x}{y} = 2$$

Difficulty:
Hard

Your answer:
2

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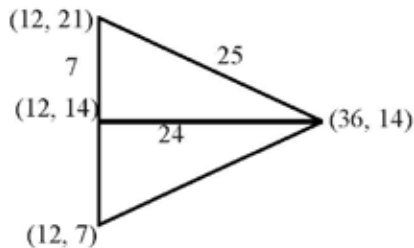
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Warm-Up #113

In the rectangular coordinate system, the distance between point $M(36, 14)$ and point $N(12, k)$ is 25. What is one possible value of k ?



From the numbers given, we know the distance between the 2 points is 25 and one side length is 24 (between the x coordinates of 12 and 36). So, we should recognize the 7-24-25 triangle and figure out the y-coordinates to give a distance of 7.

Difficulty:
Hard
Your answer:
7 or 2

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Geometry Samples

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Warm-Up #129

In the xy -coordinate plane, line M has a y -intercept of 0 and is perpendicular to the line $2y + 3x = 8$. If the point $(a, a + 3)$ lies on line M , what is the value of a ?

Rearrange to find the slope:

$$2y + 3x = 8$$

$$2y = -3x + 8$$

$$y = \frac{-3}{2}x + 4$$

(A) -9

(B) -3

(C) $-\frac{1}{3}$
Find the slope of line M:

$$y = \frac{2}{3}x$$

(D) 3 **Plug in $(a, a + 3)$ and solve for a :**

(E) 9

$$a + 3 = \frac{2a}{3}$$

$$3a + 9 = 2a$$

$$a = -9$$

Difficulty:
Medium
Your answer:
A

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To Contact Knowsys

info@ktprep.com
 www.myknowsys.com
 512-961-8522