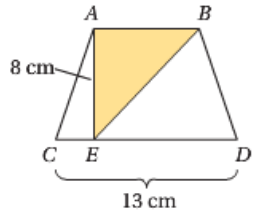


- Solve each equation. If applicable, state whether it is an identity or a contradiction.
 - $5(x + 3) + 4x - 5 = 4 - 2x$
 - $-6x + 2x - 11 = -2(2x - 3) + 4$
 - $4(x + 2) - 8x - 5 = -3x + 9 - 2(x + 6)$
 - $7[2 - (3 - 4x)] - 2x = -9 + 2(1 - 5x)$
 - $-[3x - (2x + 5)] = -4 - [3(2x - 4) - 3x]$
 - $-2 + 3x = 5x - 2(x - 3) - 8$
- The expression $0.06(10 - x)(100)$ is equivalent to which of the following?
 - $0.06 - 0.06x$
 - $60 - 6x$
 - $6 - 6x$
 - $6 - 0.06x$
- Suppose that in solving the equation $\frac{1}{3}x + \frac{1}{4} = \frac{1}{6}x$, we begin by multiplying each side by 24, rather than the least common denominator, 12. Would we get the correct solution?
- Solve each equation.
 - $\frac{x}{10} - \frac{x}{15} = 1$
 - $\frac{x-10}{5} + \frac{2}{5} = -\frac{x}{3}$
 - $\frac{3x-1}{4} + \frac{x+3}{6} = 3$
 - $\frac{2}{3}(9y - 6) - 5 = \frac{2}{5}(30y - 25) - 7y$
- Concept check:* To solve a linear equation with decimals, we usually begin by multiplying by a power of 10 so that all coefficients are integers. What is the least power of 10 that will accomplish this goal in each equation?
 - $0.05x + 0.12(x + 5000) = 940$
 - $0.006(x + 2) = 0.007x + 0.009$
- Solve each equation.
 - $0.08x + 0.12(260 - x) = 0.48x$
 - $0.004x + 0.006(50 - x) = 0.004(68)$
- Solve each formula for the specified variable.
 - $I = Prt$ for t
 - $V = \frac{1}{3}\pi r^2 h$ for h
 - $F = \frac{9}{5}C + 32$ for C
 - $2\pi r + 4r = 5$ for r
- If the simple interest on \$1000 for 2 years is \$300, then what is the rate?
- The area of the shaded triangle ABE is 20 cm^2 . Find the area of the trapezoid.
 
- A rectangular reflecting pool with a horizontal bottom holds 60,000 gallons of water. If the pool is 40 feet by 100 feet, how deep is the water?
- If the circumference of the earth is 25,000 miles, then what is the radius?
- Between 2000 and 2007, the estimated population of Pittsfield declined from 134,953 to 129,798. What was the percent decrease to the nearest tenth?