

INTRODUCTION TO ALGEBRA

FINAL TEST

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Solve for the variable, show all work.

1) $17 = x - 8$ 2) $x - 6\frac{1}{2} = \frac{3}{4}$ 3) $\frac{5}{9} = x - \frac{3}{5}$

4) $\frac{x}{3} + 7 = 8$ 5) $\frac{2}{3}x + \frac{5}{8} = \frac{1}{2}$ 6) $\frac{3}{4}x + \frac{1}{2} = \frac{7}{8}$

7) $6x - 15 = 84 - 3x$ 8) $6x + 15 = 40 + 2x$

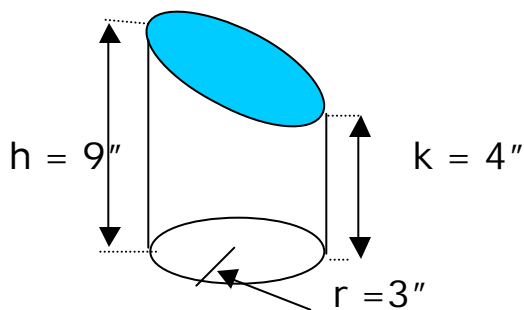
9) $7x - 8 + 9x + 12 - 11x - 20 = 2x + 5 + 7x + 2 + 3x + 5 - 10x + 1$

10) $-8x + 7 + 2x + 6 + 3x + 9 + 4x + 3 = 4x + 2 - 19x + 6 + 10x + 4 + 5x + 11$

11) $\frac{-4(3+N)}{(3-5)} = -5$

12) $\frac{1}{2} = \frac{(3/4)X}{1/2}$

13)



Formula for Frustum of a right cylinder

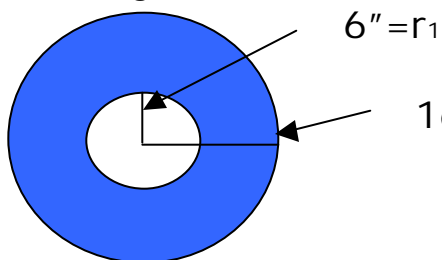
$$V = \frac{\pi r^2}{2} (h + k)$$

$$\pi = 3.14$$

Find the volume.

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Finding the area of an annulus. (the blue area)



$$A = \pi (r_1 + r_2)(r_2 - r_1)$$

$$16'' = r_2$$

Use these values in the problems below. Solve and Label properly.

$$A = 15 \text{ in.}$$

$$E = 1/4$$

$$I = 100 \text{ ft.}$$

$$B = 6$$

$$F = 1/2$$

$$J = 1/4 \text{ ft.}$$

$$C = 6 \text{ gal.}$$

$$G = 10 \text{ ft.}$$

$$D = 2 \text{ ft.}$$

$$H = 20$$

$$15) M = AF$$

$$16) N = \frac{D}{F}$$

$$17) P = \frac{DH}{F}$$

$$18) Q = DHJ$$

$$19) R = \frac{BG}{E}$$

$$20) T = \frac{C}{F}$$

$$21) U = \frac{3I}{D}$$

$$22) V = \frac{AB}{G}$$

$$23) W = \frac{ABD}{J}$$

$$24) X = \frac{AH}{I}$$