

ALGEBRA

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$$(17x^3y^2 + 4x^2y - 5x) - (10x^3y^2 + 4x^2y - 7x) + (3x^3y^2 + 2x^2y - 9x) =$$

$$= \underline{17x^3y^2} + \underline{4x^2y} - \underline{5x} - \underline{10x^3y^2} + \underline{4x^2y} + \underline{7x} + \underline{3x^3y^2} + \underline{2x^2y} - \underline{9x} =$$

$$= (17 - 10 + 3)x^3y^2 + (+4 - 4 + 2)x^2y + (-5 + 7 - 9)x =$$

$$= 10x^3y^2 + 2x^2y - 7x$$

586

$$-\frac{3}{4}a - \left[\frac{9}{5}ab - \frac{1}{5}a + \left(\frac{2}{3}b + \frac{1}{2}a - 1 \right) - \frac{1}{2} - \frac{1}{9}b \right] + \frac{5}{9}b =$$

$$= -\frac{3}{4}a - \left[\frac{9}{5}ab - \frac{1}{5}a + \frac{2}{3}b + \frac{1}{2}a - 1 - \frac{1}{2} - \frac{1}{9}b \right] + \frac{5}{9}b =$$

$$= \underbrace{-\frac{3}{4}a} - \frac{9}{5}ab + \underbrace{\frac{1}{5}a} - \underbrace{\frac{2}{3}b} - \underbrace{\frac{1}{2}a} + 1 + \underbrace{\frac{1}{2}} + \underbrace{\frac{1}{9}b} + \underbrace{\frac{5}{9}b} =$$

$$= \left(-\frac{3}{4} + \frac{1}{5} - \frac{1}{2} \right) a + \left(-\frac{2}{3} + \frac{1}{9} + \frac{5}{9} \right) b - \frac{9}{5}ab + \left(1 + \frac{1}{2} \right) =$$

$$= \left(\frac{-15+4-10}{20} \right) a + \left(\frac{-6+1+5}{9} \right) b - \frac{9}{5}ab + \frac{3}{2} =$$

$$= -\frac{21}{20}a - \frac{9}{5}ab + \frac{3}{2}$$

587

$$2+a - \left[\frac{3}{2}a - (2+ab) \right] - \left[\frac{2}{3}b + \left(4 - \frac{3}{5}a\right) \right] + \frac{1}{5}a + \frac{5}{3}b =$$

$$= 2+a - \left[\frac{3}{2}a - 2 - ab \right] - \left[\frac{2}{3}b + 4 - \frac{3}{5}a \right] + \frac{1}{5}a + \frac{5}{3}b =$$

$$= \underline{\underline{2+a}} - \underline{\underline{\frac{3}{2}a}} + \underline{\underline{2+ab}} - \underline{\underline{\frac{2}{3}b}} - \underline{\underline{4}} + \underline{\underline{\frac{3}{5}a}} + \underline{\underline{\frac{1}{5}a}} + \underline{\underline{\frac{5}{3}b}} =$$

$$= \left(1 - \frac{3}{2} + \frac{3}{5} + \frac{1}{5} \right) a + \left(1 + \frac{5}{3} \right) b + \left(2 + 2 - 4 \right) =$$

$$= \left(\frac{10 - 15 + 6 + 2}{10} \right) a + \left(\frac{-2 + 12 + 5}{3} \right) b =$$

$$= \frac{3}{10}a + 5b$$

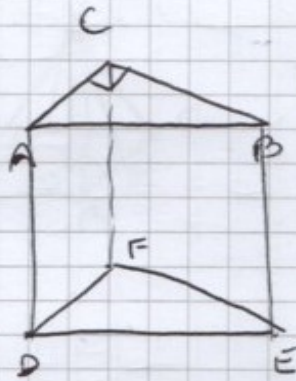
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$$AC + CB = 62 \text{ cm}$$

$$AC = \frac{3}{4} \text{ de } \overline{CB}$$

$$\overline{AD} = 72 \text{ cm}$$

$$S_L = ? \quad V = ?$$



$$62 : 7 = 6 \text{ cm} \quad | \quad 1$$

$$6 \times 3 = 18 \text{ cm } \overline{AC}$$

$$6 \times 6 = 24 \text{ cm } \overline{CB}$$

$$\overline{AB} = \sqrt{AC^2 + CB^2} = \sqrt{324 + 576} = \sqrt{900} = 30 \text{ cm}$$

$$P_b = 30 + 18 + 24 = 72 \text{ cm}$$

$$S_L = P_b \cdot h = 72 \cdot 72 = 5184 \text{ cm}^2$$

$$A_b = \frac{AC \cdot CB}{2} = 216 \text{ cm}^2$$

$$V = A_b \cdot h = 216 \cdot 72 = 15552 \text{ cm}^3$$

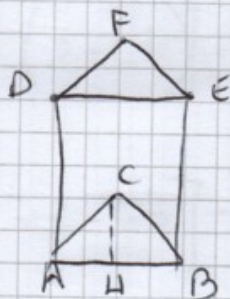
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$$P_b = 40 \text{ cm}$$

$$AC = \frac{5}{6} \text{ di } \overline{AB}$$

$$V = 1350 \text{ cm}^3$$

$$S_T = ?$$



$$40 : (5 + 5 + 6) = 40 : 16 = 2,5 \text{ cm } H$$

$$2,5 \times 5 = 12,5 \text{ cm } \overline{AC} = \overline{CB}$$

$$2,5 \times 6 = 15,0 \text{ cm } \overline{AB}$$

$$HB = AB : 2 = 15 : 2 = 7,5 \text{ cm}$$

$$CH = \sqrt{CB^2 - HB^2} = \sqrt{12,5^2 - 7,5^2} = \sqrt{100} = 10 \text{ cm}$$

$$A_b = \frac{AB \cdot CH}{2} = \frac{15 \cdot 10}{2} = 75 \text{ cm}^2$$

$$h = BE = V : A_b = 1350 : 75 = 18 \text{ cm}$$

$$S_L = P_b \cdot h = 40 \cdot 18 = 720 \text{ cm}^2$$

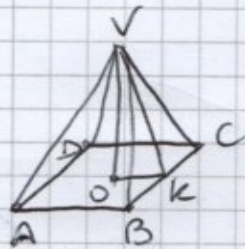
$$S_T = S_L + 2A_b = 720 + 75 + 75 = 870 \text{ cm}^2$$

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$$A_b = 163,84 \text{ dm}^2$$

$$V_0 = \frac{3}{8} \overline{AB}$$

$$S_T = ? \quad V = ?$$



$$AB = \sqrt{163,84} = 12,8 \text{ dm}$$

$$(12,8 : 8) \times 3 = 4,8 \text{ dm } v_0$$

$$VK = \sqrt{v_0^2 + OK^2} = \sqrt{4,8^2 + 6,4^2} = \sqrt{64} = 8 \text{ dm}$$

$$P_b = 12,8 \times 4 = 51,2 \text{ dm}$$

$$S_L = \frac{P_b \cdot h}{2} = \frac{51,2 \cdot 8}{2} = 204,8 \text{ dm}^2$$

$$S_T = S_L + A_b = 204,8 + 163,84 = 368,64 \text{ dm}^2$$

$$V = \frac{A_b \cdot h}{3} = \frac{163,84 \cdot 4,8}{3} = 262,144 \text{ dm}^3$$