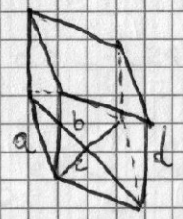
(2b)



$b-c=14\,mm$

$b=\frac{12}{5}c$

$A_{tot}=1644\,mm^2$

$d=?$

$b=12v \quad c=5v \quad b-c=12v-5v=7v=14$

$1v=2\,mm \quad b=12\cdot 2=24\,mm \quad c=5\cdot 2=10\,mm$

$A_b=\frac{b\cdot c}{2}=\frac{24\cdot 10}{2}=120\,mm^2$

$A_l=1644-120\cdot 2=1404\,mm^2$

$\frac{b}{2}=\frac{24}{2}=12\,mm \quad \frac{c}{2}=\frac{10}{2}=5\,mm$

$a=\sqrt{12^2+5^2}=13\,mm \quad P_b=13\cdot 4=52\,mm$

$d=1404:52=27\,mm$

5

(3)

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

$$=-\left(\frac{1}{3}\cdot 2\right)a^2b^2+\left(\frac{1}{3}\cdot\frac{1}{3}\right)a^2b^3-\left(\frac{1}{3}\cdot\frac{2}{3}\right)a^3b^3+\left(\frac{1}{3}\cdot\frac{2}{3}\right)ab^2-\left(\frac{1}{3}\cdot\frac{1}{3}\right)a^2b^3=$$

$$=-\frac{2}{3}a^2b^2+\frac{1}{6}a^2b^3-\frac{5}{9}a^3b^3+\frac{2}{9}ab^2-\frac{1}{9}a^2b^3=$$

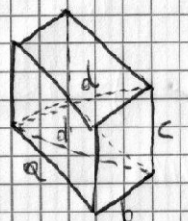
$$=\left(-\frac{2}{3}-\frac{1}{9}\right)a^2b^2+\frac{1}{6}a^2b^3-\frac{5}{9}a^3b^3+\frac{2}{9}ab^2=$$

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

$$=-\frac{7}{9}a^2b^2+\frac{1}{6}a^2b^3-\frac{5}{9}a^3b^3+\frac{2}{9}ab^2$$

4

(4)



$d=39\,mm$

$a=12\,mm$

$b=9\,mm$

$A_l, A_c, V=?$

$d'=\sqrt{39^2+12^2}=15\,mm$

$c=\sqrt{39^2-15^2}=36\,mm$

$A_b=9\cdot 12=108\,mm^2$

$A_l=2\cdot(a+b)\cdot c=2\cdot 21\cdot 36=1512\,mm^2$

$A_T=1512+108\cdot 2=1728\,mm^2$

$V=a\cdot b\cdot c=12\cdot 9\cdot 36=3888\,mm^3$

5

⑤

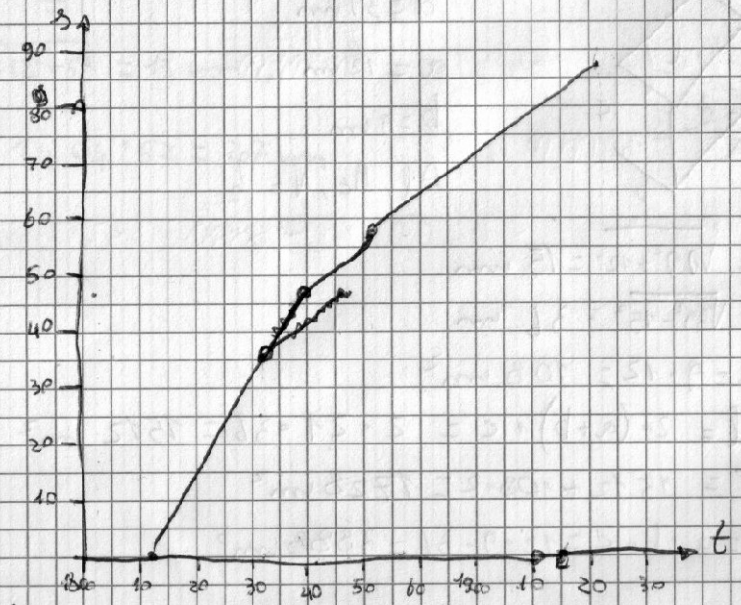
P = 18.12

	A	Km p.	v_m	t	Km t. t
Firenze	18.12'	0			0
Empoli	18.32'	35	105 Km/h	20'	35
Cerr	18.41'	12	80 Km/h	9'	47
Lucca	18.52'	10	54 Km/h	11'	57
Siena		30	60 Km/h	30'	87

v_m = 60 km/h

$t_a = \frac{30}{60} \cdot 60 = 30'$

h_a = 30' + 18.52 = 19.22'



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4 0-1 6 5 17-19 6 20-23 7 24-26 8-27-29

9 30-32 10-33