| SUBIECTUL I | 30 pc |
|---|---|
| 1.   5,0503 | 5p |
| 2.   $4\sqrt{5}$ | 5p |
| 3.   32 | 5p |
| 4.   36 | 5p |
| 5.   12 | 5p |
| 6.   2000 | 5p |

| SUBIECTUL al II -lea | 30 pc |
|---|---|
| 1.    10 | 5p |
| 2.   Suma masurilor unghiurilor unui triunghi este egala cu 180(x+y+z=180) | 1p |
|    $\frac{x}{2}=\frac{y}{3}=\frac{z}{5}$=t | |
|    Inlocuim x=2t , y=3t si z=5t in prima relatie si obtinem t=18 | 1p |
|    x=36 | 1p |
|    y=54 | 1p |
|    z=90 | 1p |
| 3.   a)f(-1)= -2=> -a+b=-2 | 2p |
|      a=3b | 3p |
|      ⇨  a=3 si b=1=> f(x) = 3x+1 | |
|    b)reprezentarea corecta a graficului | 5p |
|    c)f(-3)=-8 | 0,5p |
|      f(-2)=-5 | 0.5p |
|      f(-1)=-2 | 0,5p |
|      f(0)=1 | 0,5p |
|      f(1)=4 | 0,5p |
|      f(2)=7 | 0,5p |
| 4.   s=-3 | 2p |
|    4dm=40cm | 2p |
|    Cubul are 12 muchii | 2p |
|    40*12=480cm | 1p |

| SUBIECTUL al III-lea | 30 pc |
|---|---|
| 1.   a)(L+5)*(l-3)= Ll-30 | 1p |
|     (L-5)*(l+5)= Ll+40 | 1p |
|    Rezolvam sistemul si obtinem L=25cm si l=12cm | 3p |
|    b)L=20 | 1p |
|     l=17 | 1p |
|    A=340$cm^2$ | 3p |
|    c)$A_1 = 300cm^2$ | 1p |
|     $A_2 = 270cm^2$ | 1p |
|     $A_3 = 340cm^2$ | 1p |
|     $A_2 < A_1 < A_3$ | 2p |
| 2.   a)BC=CD=12cm | |
|    $A_{VBD} = \frac{VO * BD}{2} = 48\sqrt{2}cm^2$ | 2p, 3p |
|    b)VM=10cm | |
|    $A_l = 240cm^2$ | 2p |
|    $A_t = 384cm^2$ | 1p |
|    V= 384$cm^3$ | 1p |
|    c)OP=$\frac{OV*OM}{VM}$=4,8cm | 1p |
| | 5p |