

**Soluție**

1.  $2(a - bi) + a + bi = 3 + 4i \Rightarrow z = 1 - 4i$  .

2.  $s(s^2 - 3p) = -18$  .

3.  $5^x = t > 0 \Rightarrow 1 + t - 2t^2 = 0 \Rightarrow t = 1 \Rightarrow x = 0$  .

4.  $T_{k+1} = C_9^k (a^2)^{9-k} \left(\frac{1}{\sqrt[3]{a}}\right)^k, 2(9-k) - \frac{k}{3} = 4 \Rightarrow k = 6 \Rightarrow T_7$  .

5.  $\vec{u}^2 - \vec{v}^2 = (\vec{u} - \vec{v})(\vec{u} + \vec{v}), (3\vec{i} + 2\vec{j})(2\vec{i} + 3\vec{j}) = 3 \cdot 2 + 2 \cdot 3 = 12$  .

6.  $BC = \sqrt{AC^2 + AB^2} = 13 \Rightarrow R = \frac{BC}{2} = \frac{13}{2}$  .