1.   ,

$$(2 - a) \cdot x^3 + (1 - 2a) \cdot x^2 - 6x + (5 + 4a - a^2) < 0$$

                                                         $[-1; 2].$

2.

$$x^2 + 5y^2 + 34z^2 + 2x \ - 10x \ - 22y \ = 0.$$

3. $R,$

            $D,$ $AD = R.$

)   ,   .

) E $F.$

            $BEF,$, $R = 2$ $CD = 10.$

4.   ,   10   ,

                                  ,   .   ,

            .   ,

                  ,   50   .

                                                               ,   1

15   .

5.

                                          ,

      ?