1. Rochester Motor Company manufactures and sells a single product. The following information pertains to the company’s projected operating costs for the months of June and July:

June July

**Production Volume 3000 3600**

Direct Materials $45,000 $54,000

Direct Labor $36,000 43,200

Machine maintenance 5,000 5,500

Factory insurance 2,000 2,000

Depreciation on machinery 3,500 3,500

Electricity used in factory 1,500 2,000

Based on the projected costs, please state which of the following is a) fixed cost, b) variable cost, or c) mixed cost and **explain** **why**.

1. Direct material
2. Factory Insurance
3. Electricity used in factory
4. Machine maintenance
5. Direct labor
6. Medusa Products is a manufacturing company that operates a job-order costing system. Overhead costs are applied to jobs on the basis of machine-hours. At the beginning of the year, management estimated that the company would incur $170,000 in manufacturing overhead costs for the year and work 85,000 machine hours. What is the company’s predetermined overhead rate (round up to two decimal points)?
7. Avery Co. uses a predetermined overhead rate based on direct labor hours to apply manufacturing overhead to jobs. For the month of October, Avery’s estimated manufacturing overhead cost was $300,000 based on an estimated activity level of 100,000 direct labor hors. Actual overhead amounted to $325,000 with actual direct labor hours totaling 110,000 for the month. How much was the overapplied or underapplied overhead?