{'headers': {'date': 'Sun, 14 Apr 2024 10:08:36 GMT', 'content-type': 'application/json;charset=utf-8', 'content-length': '14384', 'connection': 'keep-alive', 'keep-alive': 'timeout=25', 'vary': 'Accept-Encoding', 'access-control-allow-origin': '\*', 'access-control-expose-headers': '\*', 'x-acs-request-id': 'A8563179-6545-5DAF-90A2-2F2399403DD5', 'x-acs-trace-id': '4d63ec02797645060939a83d281fccb8', 'etag': '1pMkqV4MKioFEuvFuZh6u9Q7'}, 'statusCode': 200, 'body': {'Data': '{"algo\_version":"","doc\_layout":[{"layout\_type":"text","pos":[{"x":53,"y":32},{"x":53,"y":74},{"x":420,"y":74},{"x":420,"y":32}]},{"layout\_type":"text","pos":[{"x":123,"y":1564},{"x":123,"y":1670},{"x":1600,"y":1670},{"x":1600,"y":1564}]},{"layout\_type":"foot","pos":[{"x":759,"y":2267},{"x":759,"y":2297},{"x":892,"y":2297},{"x":892,"y":2267}]},{"layout\_type":"text","pos":[{"x":141,"y":93},{"x":140,"y":286},{"x":1598,"y":286},{"x":1598,"y":93}]},{"layout\_type":"text","pos":[{"x":143,"y":959},{"x":143,"y":1006},{"x":980,"y":1006},{"x":980,"y":959}]},{"layout\_type":"text","pos":[{"x":54,"y":1511},{"x":54,"y":1556},{"x":420,"y":1556},{"x":420,"y":1511}]},{"layout\_type":"text","pos":[{"x":56,"y":794},{"x":56,"y":836},{"x":420,"y":836},{"x":420,"y":794}]},{"layout\_type":"text","pos":[{"x":144,"y":849},{"x":144,"y":895},{"x":1248,"y":895},{"x":1248,"y":849}]},{"layout\_type":"text","pos":[{"x":142,"y":906},{"x":142,"y":948},{"x":486,"y":949},{"x":486,"y":906}]},{"layout\_type":"text","pos":[{"x":138,"y":850},{"x":138,"y":947},{"x":1246,"y":947},{"x":1246,"y":849}]}],"doc\_sptext":[{"layout\_type":"bold","pos":[{"x":817,"y":2269},{"x":817,"y":2296},{"x":835,"y":2296},{"x":835,"y":2269}]}],"doc\_subfield":[{"layout\_type":"single","pos":[{"x":51,"y":7},{"x":51,"y":1683},{"x":1599,"y":1683},{"x":1599,"y":7}]}],"figure":[{"type":"subject\_question","x":0,"y":0,"w":0,"h":0,"box":{"x":661,"y":898,"w":226,"h":1197,"angle":-90},"points":[{"x":62,"y":785},{"x":1259,"y":785},{"x":1259,"y":1011},{"x":62,"y":1010}]},{"type":"subject\_question","x":0,"y":0,"w":0,"h":0,"box":{"x":824,"y":1593,"w":150,"h":1538,"angle":-90},"points":[{"x":55,"y":1519},{"x":1593,"y":1519},{"x":1593,"y":1667},{"x":55,"y":1667}]},{"type":"subject\_question","x":0,"y":0,"w":0,"h":0,"box":{"x":823,"y":152,"w":278,"h":1571,"angle":-90},"points":[{"x":38,"y":14},{"x":1609,"y":14},{"x":1609,"y":292},{"x":38,"y":292}]}],"height":2339,"orgHeight":2339,"orgWidth":1654,"page\_id":0,"page\_title":"","part\_info":[{"part\_title":"","pos\_list":[[{"x":54,"y":36},{"x":1596,"y":37},{"x":1597,"y":1667},{"x":54,"y":1674}]],"subject\_list":[{"index":0,"type":15,"num\_choices":0,"prob":0,"text":"(21)(本题满分11分)设y(x)是区间$$\\\\left( 0 , \\\\frac { 3 } { 2 } \\\\right)$$内的可导函数,且y(1)=0.点P是曲线l:y=y(x)上的任意一点,l在点P处的切线与y轴相交于点$$\\\\left( 0 , Y \_ { P } \\\\right) ,$$法线与x轴相交于点$$\\\\left( X \_ { P } , 0 \\\\right) ,$$若$$X \_ { P } = Y \_ { P } ,$$求l上点的坐标(x,y)满足的方程.","figure\_list":[],"table\_list":[],"answer\_list":[[{"x":0,"y":14},{"x":1654,"y":14},{"x":1654,"y":785},{"x":0,"y":785}]],"pos\_list":[[{"x":38,"y":14},{"x":1609,"y":14},{"x":1609,"y":292},{"x":38,"y":292}]],"element\_list":[{"type":0,"text":"(21)(本题满分11分)","pos\_list":[[{"x":54,"y":36},{"x":419,"y":37},{"x":419,"y":69},{"x":54,"y":68}]],"content\_list":[{"type":1,"prob":99,"string":"(21)(本题满分11分)","option":"","pos":[{"x":54,"y":36},{"x":419,"y":37},{"x":419,"y":69},{"x":54,"y":68}]}]},{"type":0,"text":"设y(x)是区间$$\\\\left( 0 , \\\\frac { 3 } { 2 } \\\\right)$$内的可导函数,且y(1)=0.点P是曲线l:y=y(x)上的任意一点,l在点P处的切线与y轴相交于点$$\\\\left( 0 , Y \_ { P } \\\\right) ,$$法线与x轴相交于点$$\\\\left( X \_ { P } , 0 \\\\right) ,$$若$$X \_ { P } = Y \_ { P } ,$$求l上点的坐标(x,y)满足的方程.","pos\_list":[[{"x":138,"y":87},{"x":1595,"y":79},{"x":1596,"y":272},{"x":139,"y":280}]],"content\_list":[{"type":1,"prob":99,"string":"设y(x)是区间","option":"","pos":[{"x":138,"y":102},{"x":393,"y":99},{"x":394,"y":162},{"x":139,"y":165}]},{"type":2,"prob":99,"string":"$$\\\\left( 0 , \\\\frac { 3 } { 2 } \\\\right)$$","option":"","pos":[{"x":394,"y":85},{"x":516,"y":85},{"x":516,"y":171},{"x":394,"y":171}]},{"type":1,"prob":99,"string":"内的可导函数,且","option":"","pos":[{"x":515,"y":97},{"x":801,"y":93},{"x":802,"y":156},{"x":516,"y":160}]},{"type":1,"prob":99,"string":"y(1)=0.","option":"","pos":[{"x":801,"y":108},{"x":962,"y":108},{"x":962,"y":151},{"x":801,"y":151}]},{"type":1,"prob":99,"string":"点P是曲线","option":"","pos":[{"x":961,"y":91},{"x":1163,"y":89},{"x":1164,"y":152},{"x":962,"y":154}]},{"type":1,"prob":99,"string":"l:y=y(x)","option":"","pos":[{"x":1164,"y":109},{"x":1348,"y":109},{"x":1348,"y":152},{"x":1164,"y":152}]},{"type":1,"prob":99,"string":"上的任意一点,","option":"","pos":[{"x":1348,"y":86},{"x":1591,"y":83},{"x":1592,"y":146},{"x":1349,"y":149}]},{"type":1,"prob":99,"string":"l在点P处的切线与y轴相交于点","option":"","pos":[{"x":139,"y":195},{"x":673,"y":192},{"x":674,"y":226},{"x":140,"y":228}]},{"type":2,"prob":99,"string":"$$\\\\left( 0 , Y \_ { P } \\\\right) ,$$","option":"","pos":[{"x":673,"y":187},{"x":803,"y":187},{"x":803,"y":230},{"x":674,"y":231}]},{"type":1,"prob":99,"string":"法线与x轴相交于点","option":"","pos":[{"x":803,"y":191},{"x":1138,"y":190},{"x":1138,"y":223},{"x":803,"y":225}]},{"type":2,"prob":94,"string":"$$\\\\left( X \_ { P } , 0 \\\\right) ,$$","option":"","pos":[{"x":1138,"y":187},{"x":1272,"y":187},{"x":1272,"y":231},{"x":1139,"y":232}]},{"type":1,"prob":99,"string":"若","option":"","pos":[{"x":1272,"y":189},{"x":1316,"y":189},{"x":1316,"y":222},{"x":1272,"y":222}]},{"type":2,"prob":98,"string":"$$X \_ { P } = Y \_ { P } ,$$","option":"","pos":[{"x":1316,"y":188},{"x":1459,"y":187},{"x":1459,"y":231},{"x":1316,"y":232}]},{"type":1,"prob":98,"string":"求l上点","option":"","pos":[{"x":1459,"y":188},{"x":1595,"y":187},{"x":1596,"y":221},{"x":1459,"y":221}]},{"type":1,"prob":99,"string":"的坐标(x,y)满足的方程.","option":"","pos":[{"x":142,"y":247},{"x":550,"y":245},{"x":550,"y":277},{"x":142,"y":279}]}]}]},{"index":1,"type":15,"num\_choices":0,"prob":0,"text":"(22)(本题满分11分)设3阶矩阵$$A = \\\\left( a \_ { 1 } , a \_ { 2 } , a \_ { 3 } \\\\right)$$有3个不同的特征值,且$$\\\\alpha \_ { 3 } = \\\\alpha \_ { 1 } + 2 \\\\alpha \_ { 2 } .$$(I)证明r(A)=2;(Ⅱ)若$$\\\\beta = \\\\alpha \_ { 1 } + \\\\alpha \_ { 2 } + \\\\alpha \_ { 3 } ,$$求方程组Ax=β的通解.","figure\_list":[],"table\_list":[],"answer\_list":[[{"x":0,"y":785},{"x":1654,"y":785},{"x":1654,"y":1518},{"x":0,"y":1518}]],"pos\_list":[[{"x":54,"y":785},{"x":1259,"y":785},{"x":1259,"y":1011},{"x":54,"y":1010}]],"element\_list":[{"type":0,"text":"(22)(本题满分11分)","pos\_list":[[{"x":54,"y":799},{"x":420,"y":799},{"x":420,"y":831},{"x":54,"y":831}]],"content\_list":[{"type":1,"prob":99,"string":"(22)(本题满分11分)","option":"","pos":[{"x":54,"y":799},{"x":420,"y":799},{"x":420,"y":831},{"x":54,"y":831}]}]},{"type":0,"text":"设3阶矩阵$$A = \\\\left( a \_ { 1 } , a \_ { 2 } , a \_ { 3 } \\\\right)$$","pos\_list":[[{"x":142,"y":851},{"x":600,"y":852},{"x":600,"y":894},{"x":142,"y":893}]],"content\_list":[{"type":1,"prob":99,"string":"设3阶矩阵","option":"","pos":[{"x":142,"y":856},{"x":331,"y":856},{"x":331,"y":888},{"x":142,"y":888}]},{"type":2,"prob":97,"string":"$$A = \\\\left( a \_ { 1 } , a \_ { 2 } , a \_ { 3 } \\\\right)$$","option":"","pos":[{"x":331,"y":852},{"x":600,"y":852},{"x":600,"y":894},{"x":331,"y":894}]}]},{"type":0,"text":"有3个不同的特征值,且$$\\\\alpha \_ { 3 } = \\\\alpha \_ { 1 } + 2 \\\\alpha \_ { 2 } .$$","pos\_list":[[{"x":600,"y":855},{"x":1245,"y":854},{"x":1246,"y":895},{"x":600,"y":896}]],"content\_list":[{"type":1,"prob":99,"string":"有3个不同的特征值,且","option":"","pos":[{"x":600,"y":855},{"x":1009,"y":854},{"x":1009,"y":886},{"x":600,"y":887}]},{"type":2,"prob":97,"string":"$$\\\\alpha \_ { 3 } = \\\\alpha \_ { 1 } + 2 \\\\alpha \_ { 2 } .$$","option":"","pos":[{"x":1009,"y":855},{"x":1245,"y":855},{"x":1246,"y":895},{"x":1009,"y":895}]}]},{"type":0,"text":"(I)证明r(A)=2;","pos\_list":[[{"x":142,"y":905},{"x":480,"y":907},{"x":479,"y":948},{"x":142,"y":946}]],"content\_list":[{"type":1,"prob":93,"string":"(Ⅰ)证明","option":"","pos":[{"x":142,"y":911},{"x":311,"y":911},{"x":311,"y":943},{"x":142,"y":943}]},{"type":1,"prob":99,"string":"r(A)=2;","option":"","pos":[{"x":311,"y":906},{"x":480,"y":907},{"x":479,"y":948},{"x":311,"y":947}]}]},{"type":0,"text":"(Ⅱ)若$$\\\\beta = \\\\alpha \_ { 1 } + \\\\alpha \_ { 2 } + \\\\alpha \_ { 3 } ,$$求方程组Ax=β的通解.","pos\_list":[[{"x":143,"y":965},{"x":978,"y":959},{"x":978,"y":1004},{"x":143,"y":1010}]],"content\_list":[{"type":1,"prob":89,"string":"(Ⅱ)若","option":"","pos":[{"x":143,"y":970},{"x":272,"y":969},{"x":272,"y":1001},{"x":143,"y":1002}]},{"type":2,"prob":99,"string":"$$\\\\beta = \\\\alpha \_ { 1 } + \\\\alpha \_ { 2 } + \\\\alpha \_ { 3 } ,$$","option":"","pos":[{"x":272,"y":964},{"x":569,"y":965},{"x":569,"y":1007},{"x":272,"y":1006}]},{"type":1,"prob":99,"string":"求方程组","option":"","pos":[{"x":569,"y":967},{"x":727,"y":966},{"x":727,"y":998},{"x":569,"y":999}]},{"type":1,"prob":99,"string":"Ax=β","option":"","pos":[{"x":727,"y":962},{"x":853,"y":962},{"x":853,"y":1002},{"x":727,"y":1002}]},{"type":1,"prob":99,"string":"的通解.","option":"","pos":[{"x":853,"y":965},{"x":978,"y":964},{"x":978,"y":996},{"x":853,"y":997}]}]}]},{"index":2,"type":15,"num\_choices":0,"prob":0,"text":"(23)(本题满分11分)设二次型$$f \\\\left( x \_ { 1 } , x \_ { 2 } , x \_ { 3 } \\\\right) = 2 x \_ { 1 } ^ { 2 } - x \_ { 2 } ^ { 2 } + a x \_ { 3 } ^ { 2 } + 2 x \_ { 1 } x \_ { 2 } - 8 x \_ { 1 } x \_ { 3 } + 2 x \_ { 2 } x \_ { 3 }$$在正交变换x=Qy下的标准形为$$\\\\lambda \_ { 1 } y \_ { 1 } ^ { 2 } + \\\\lambda \_ { 2 } y \_ { 2 } ^ { 2 } ,$$求a的值及一个正交矩阵0.","figure\_list":[],"table\_list":[],"answer\_list":[[{"x":0,"y":1518},{"x":1654,"y":1518},{"x":1654,"y":2339},{"x":0,"y":2339}]],"pos\_list":[[{"x":54,"y":1518},{"x":1596,"y":1518},{"x":1596,"y":1673},{"x":54,"y":1673}]],"element\_list":[{"type":0,"text":"(23)(本题满分11分)","pos\_list":[[{"x":54,"y":1518},{"x":420,"y":1519},{"x":420,"y":1550},{"x":54,"y":1549}]],"content\_list":[{"type":1,"prob":99,"string":"(23)(本题满分11分)","option":"","pos":[{"x":54,"y":1518},{"x":420,"y":1519},{"x":420,"y":1550},{"x":54,"y":1549}]}]},{"type":0,"text":"设二次型$$f \\\\left( x \_ { 1 } , x \_ { 2 } , x \_ { 3 } \\\\right) = 2 x \_ { 1 } ^ { 2 } - x \_ { 2 } ^ { 2 } + a x \_ { 3 } ^ { 2 } + 2 x \_ { 1 } x \_ { 2 } - 8 x \_ { 1 } x \_ { 3 } + 2 x \_ { 2 } x \_ { 3 }$$在正交变换x=Qy下的标准形为$$\\\\lambda \_ { 1 } y \_ { 1 } ^ { 2 } + \\\\lambda \_ { 2 } y \_ { 2 } ^ { 2 } ,$$求a的值及一个正交矩阵0.","pos\_list":[[{"x":139,"y":1570},{"x":1596,"y":1563},{"x":1597,"y":1667},{"x":139,"y":1674}]],"content\_list":[{"type":1,"prob":99,"string":"设二次型","option":"","pos":[{"x":143,"y":1577},{"x":292,"y":1577},{"x":292,"y":1610},{"x":143,"y":1610}]},{"type":2,"prob":99,"string":"$$f \\\\left( x \_ { 1 } , x \_ { 2 } , x \_ { 3 } \\\\right) = 2 x \_ { 1 } ^ { 2 } - x \_ { 2 } ^ { 2 } + a x \_ { 3 } ^ { 2 } + 2 x \_ { 1 } x \_ { 2 } - 8 x \_ { 1 } x \_ { 3 } + 2 x \_ { 2 } x \_ { 3 }$$","option":"","pos":[{"x":292,"y":1569},{"x":1125,"y":1565},{"x":1125,"y":1614},{"x":292,"y":1617}]},{"type":1,"prob":99,"string":"在正交变换","option":"","pos":[{"x":1125,"y":1573},{"x":1322,"y":1572},{"x":1322,"y":1605},{"x":1125,"y":1606}]},{"type":1,"prob":99,"string":"x=Qy","option":"","pos":[{"x":1322,"y":1570},{"x":1442,"y":1571},{"x":1441,"y":1612},{"x":1322,"y":1611}]},{"type":1,"prob":99,"string":"下的标准","option":"","pos":[{"x":1442,"y":1571},{"x":1596,"y":1570},{"x":1596,"y":1603},{"x":1442,"y":1604}]},{"type":1,"prob":99,"string":"形为","option":"","pos":[{"x":139,"y":1633},{"x":222,"y":1633},{"x":222,"y":1666},{"x":139,"y":1666}]},{"type":2,"prob":99,"string":"$$\\\\lambda \_ { 1 } y \_ { 1 } ^ { 2 } + \\\\lambda \_ { 2 } y \_ { 2 } ^ { 2 } ,$$","option":"","pos":[{"x":222,"y":1628},{"x":421,"y":1625},{"x":421,"y":1671},{"x":223,"y":1673}]},{"type":1,"prob":99,"string":"求","option":"","pos":[{"x":421,"y":1631},{"x":471,"y":1631},{"x":471,"y":1665},{"x":421,"y":1665}]},{"type":1,"prob":99,"string":"a","option":"","pos":[{"x":471,"y":1639},{"x":491,"y":1639},{"x":491,"y":1663},{"x":471,"y":1663}]},{"type":1,"prob":99,"string":"的值及一个正交矩阵0.","option":"","pos":[{"x":491,"y":1631},{"x":878,"y":1629},{"x":878,"y":1662},{"x":491,"y":1664}]}]}]}]}],"prism\_version":"1.0.9","prism\_wnum":0,"width":1654}', 'RequestId': 'A8563179-6545-5DAF-90A2-2F2399403DD5'}}