1. *Paul saves €400 per year in a deposit account for 5 years and earns 10% simple interest.*

*Paula saves €400 per year in a deposit account for 5 years and will earn 10% CAR.*

**Paul**  **Paula**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Year 1* | ***10% of 400*** | ***€40*** | *Year 1* | ***10% of 400*** | ***€40*** |
| *Year 2* | ***10% of 400*** | ***€40*** | *Year 2* | ***10% of 440*** | ***€44*** |
| *Year 3* | ***10% of 400*** | ***€40*** | *Year 3* | ***10% of 484*** | ***€48.40*** |
| *Year 4* | ***10% of 400*** | ***€40*** | *Year 4* | ***10% of 532.40*** | ***€53.24*** |
| *Year 5* | ***10% of 400*** | ***€40*** | *Year 5* | ***10% of 585.64*** | ***€58.56*** |
| *Total Interest*  *Year 5 Balance:* |  | ***€200***  ***€600*** | *Total Interest*  *Year 5 Balance:* |  | ***244.20***  ***€644.20*** |

1. *Dave saves €200 per year in a deposit account for 5 years and earns 10% simple interest.*

*Ray saves €200 per year in a deposit account for 5 years and will earn 10% CAR.*

*Calculate the interest rates.*

**Dave**  **Ray**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Year 1* | ***10% of 200*** | ***€20*** | *Year 1* | ***10% of 200*** | ***€20*** |
| *Year 2* | ***10% of 200*** | ***€20*** | *Year 2* | ***10% of 220*** | ***€22*** |
| *Year 3* | ***10% of 200*** | ***€20*** | *Year 3* | ***10% of 242*** | ***€24.20*** |
| *Year 4* | ***10% of 200*** | ***€20*** | *Year 4* | ***10% of 262.20*** | ***€26.62*** |
| *Year 5* | ***10% of 200*** | ***€20*** | *Year 5* | ***10% of 288.82*** | ***€28.88*** |
| *Total Interest*  *Year 5 Balance:* |  | ***€100***  ***€300*** | *Total Interest*  *Year 5 Balance:* |  | ***121.69***  ***€321.69*** |

1. *Alison saves €100 per year in a deposit account for 5 years and earns 2% simple interest.*

*Louise saves €100 per year in a deposit account for 5 years and will earn 2% CAR.*

*Calculate the interest rates*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Year 1* | ***2% of 100*** | ***€2*** | ***Year 1*** | ***2% of 100*** | ***€2*** |
| *Year 2* | ***2% of 100*** | ***€2*** | ***Year 2*** | ***2% of 102*** | ***€2.04*** |
| *Year 3* | ***2% of 100*** | ***€2*** | ***Year 3*** | ***2% of 104.04*** | ***€2.08*** |
| *Year 4* | ***2% of 100*** | ***€2*** | ***Year 4*** | ***2% of 106.12*** | ***€2.12*** |
| *Year 5* | ***2% of 100*** | ***€2*** | ***Year 5*** | ***2% of 108.24*** | ***€2.16*** |
| *Total Interest*  *Year 5 Balance:* |  | ***€10***  ***€110*** | ***Total Interest***  ***Year 5 Balance:*** |  | ***10.40***  ***€110.40*** |

1. *Gerry saves €700 per year in a deposit account for 5 years and earns 10% simple interest.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Year 1* | ***10% of 700*** | ***€70*** | *Year 1* | ***10% of 200*** | ***€20*** |
| *Year 2* | ***10% of 700*** | ***€70*** | *Year 2* | ***10% of 220*** | ***€22*** |
| *Year 3* | ***10% of 700*** | ***€70*** | *Year 3* | ***10% of 242*** | ***€24.20*** |
| *Year 4* | ***10% of 700*** | ***€70*** | *Year 4* | ***5% of 262.20*** | ***€13.11*** |
| *Year 5* | ***10% of 700*** | ***€70*** | *Year 5* | ***5% of 275.31*** | ***€13.77*** |
| *Total Interest*  *Year 5 Balance:* |  | ***350***  ***€1050*** | *Total Interest*  *Year 5 Balance:* |  | ***93.08***  ***€293.08*** |

*Mark saves €200 per year in a deposit account for 5 years and will earn 10% CAR in years 1,2,3, and 5 % in years 4 and 5*