|  | A | B | C | D | E | F | G | H | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | [Student's Name] |  |  |  |  |  |  |  |  |
| 2 | FIL 260 - Trefzger |  |  |  |  |  |  |  |  |
| 3 | Monthly Mortgage Loan Pay |  |  |  |  |  |  |  |  |
| 4 | Fixed-Rate Loan, 30 Years |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  | Compare to |  |  |
| 6 |  |  |  |  |  | Monthly | Monthly |  |  |
| 7 |  | Amortization | Annual | Amortization | Monthly | Payment | Payment |  |  |
| 8 | Amount | Period in | Interest | Period in | Interest | based on | with Excel |  |  |
| 9 | Borrowed | Years | Rate (APR) | Months | Rate (APR $\div 12$ ) | standard formula | computation |  |  |
| 10 | 180000 | 30 | 0.06 | $=\mathrm{B} 10 * 12$ | =C10/12 | $=E 10 /\left(1-(1 /(1+E 10))^{\text {D }} \text { D } 10\right)^{*} \mathrm{~A} 10$ | $=\mathrm{PMT}(\mathrm{E} 10, \mathrm{D} 10,-\mathrm{Al0})$ |  |  |
| 11 |  |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |  |
| 13 |  |  |  |  |  | Monthly |  |  |  |
| 14 |  |  |  |  |  | Payment |  |  |  |
| 15 |  |  |  |  |  | based on |  |  |  |
| 16 |  |  |  |  | Amount Owed | remaining | Same | Principal | Ending |
| 17 |  | Payments | Beginning | Plus | Before | months and | with Excel | Portion of | Principal |
| 18 | Month | Remaining | Prin. Bal. | Interest | Payment | balance | computation | Payment | Balance |
| 19 | 0 |  |  |  |  |  |  |  | =A10 |
| 20 | =A19+1 | =D10 | =I19 | =SE\$10*C20 | $=\mathrm{C} 20+\mathrm{D} 20$ | $=$ SE\$10/(1-(1/(1+\$E\$10) ${ }^{\text {P }}$ B20)*C20 | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 20,-\mathrm{C} 20)$ | =F20-D20 | $=\mathrm{C} 20-\mathrm{H} 20$ |
| 21 | =A $20+1$ | = $\mathrm{B} 20-1$ | =I20 | =SE\$10*C21 | $=\mathrm{C} 21+\mathrm{D} 21$ | $=$ SE\$10/(1-(1/(1+\$E\$10) $)^{\text {B }}$ 21) $)^{*}$ C21 | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 21,-\mathrm{C} 21)$ | =F21-D21 | = C21-H21 |
| 22 | =A $21+1$ | = $\mathrm{B} 21-1$ | =I21 | =\$E\$10*C22 | $=\mathrm{C} 22+\mathrm{D} 22$ | $=$ SE\$10/(1-(1/(1+\$E\$10) ${ }^{\text {P }}$ B22)*C22 | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 22,-\mathrm{C} 22)$ | =F22-D22 | =C22-H22 |
| 23 | =A $22+1$ | =B22-1 | = 122 | =SE\$10*C23 | $=\mathrm{C} 23+\mathrm{D} 23$ | $=$ SE\$10/(1-(1/(1+\$E\$10) $)^{\text {B }}$ 23 $)^{*}$ C23 | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 23,-\mathrm{C} 23)$ | =F23-D23 | = $\mathrm{C} 23-\mathrm{H} 23$ |
| 24 | =A $23+1$ | = $\mathrm{B} 23-1$ | = 123 | =SE\$10*C24 | =C24+D24 | $=$ SE\$10/(1-(1/(1+\$E\$10) ${ }^{\text {- }}$ B24)*C24 | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 24,-\mathrm{C} 24)$ | =F24-D24 | =C24-H24 |
| 25 | =A $24+1$ | = $\mathrm{B} 24-1$ | =I24 | =\$E\$10*C25 | $=\mathrm{C} 25+\mathrm{D} 25$ | $=$ SE\$10/(1-(1/(1+\$E\$10) ${ }^{\text {P }}$ B25)*C25 | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 25,-\mathrm{C} 25)$ | =F25-D25 | $=\mathrm{C} 25-\mathrm{H} 25$ |
| 26 | =A $25+1$ | = $225-1$ | = 125 | =SE\$10*C26 | =C26+D26 | $=$ SE\$10/(1-(1/(1+\$E\$10) ${ }^{\text {'B }}$ 26 2$)^{*}$ C26 | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 26,-\mathrm{C} 26)$ | =F26-D26 | = C26-H26 |
| 27 | =A26+1 | =B26-1 | =I26 | =\$E\$10*C27 | =C27+D27 | $=$ SE\$10/(1-(1/(1+\$E\$10) $)^{\text {B }}$ 27 $)^{*}$ C27 | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 27,-\mathrm{C} 27$ ) | =F27-D27 | =C27-H27 |
| 28 | $=\mathrm{A} 27+1$ | =B27-1 | $=\mathrm{I} 27$ | =SE\$10*C28 | $=\mathrm{C} 28+\mathrm{D} 28$ | $=$ SE\$10/(1-(1/(1+\$E\$10) ${ }^{\text {P }} \mathbf{}$ 28 $)^{*}$ C28 | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 28,-\mathrm{C} 28)$ | =F28-D28 | $=\mathrm{C} 28-\mathrm{H} 28$ |
| 29 | =A28 +1 | = $228-1$ | $=\mathrm{I} 28$ | =SE\$10*C29 | =C29+D29 | $=$ SE\$10/(1-(1/(1+\$E\$10) ${ }^{\text {P }}$ B29)*C29 | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 29,-\mathrm{C} 29)$ | =F29-D29 | = C29-H29 |
| 30 | =A29+1 | =B29-1 | = 129 | =\$E\$10*C30 | $=\mathrm{C} 30+\mathrm{D} 30$ | $=$ SE\$10/(1-(1/(1+\$E\$10) ${ }^{\text {P B } 30) * \text { C } 30}$ | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 30, \mathrm{C} 30)$ | =F30-D30 | = C30-H30 |
| 31 | =A $30+1$ | =B30-1 | $=130$ | =\$E\$10*C31 | =C31+D31 | = SE\$10/(1-(1/(1+\$E\$10) ${ }^{\text {P }}$ B 31$)^{*}$ C31 | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 31,-\mathrm{C} 31)$ | =F31-D31 | =C31-H31 |
| 32 | =A31+1 | =B31-1 | =I31 | =\$E\$10*C32 | =C32+D32 |  | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 32,-\mathrm{C} 32)$ | =F32-D32 | =C32-H32 |
| 33 | =A $32+1$ | =B32-1 | = I32 | =\$E\$10*C33 | $=\mathrm{C} 33+$ D 33 | $=$ SE\$10/(1-(1/(1+\$E\$10) $\left.)^{\text {B }} 33\right)^{*}$ C 33 | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 33,-\mathrm{C} 33)$ | =F33-D33 | =C33-H33 |
| 34 | =A $33+1$ | =B33-1 | =I33 | =SE\$10*C34 | =C34+D34 | $=$ SE\$10/(1-(1/(1+\$E\$10) $\left.)^{\text {B }} 34\right)^{*}$ C 34 | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 34,-\mathrm{C} 34)$ | =F34-D34 | =C34-H34 |
| 35 | =A34+1 | =B34-1 | $=\mathrm{I} 34$ | =SE\$10*C35 | $=C 35+$ D35 | $=$ SE\$10/(1-(1/(1+\$E\$10) ${ }^{\text {P }}$ B 35$)^{*} \mathrm{C} 35$ | $=\mathrm{PMT}(\mathrm{E} \$ 10, \mathrm{~B} 35,-\mathrm{C} 35)$ | =F35-D35 | =C35-H35 |

## Continue pasting down

| 352 |
| :--- |
| 353 |
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| =B351-1 | = 1351 | =\$E\$10*C352 | $=\mathrm{C} 352+$ D352 | $=$ SES10/(1-(1/(1+\$E\$10)) $\left.{ }^{\text {- }} 3352\right)^{*}$ C352 |
| :---: | :---: | :---: | :---: | :---: |
| =B352-1 | = 1352 | $=$ SE\$ $10 *$ C 353 | =C353+D353 | $=$ SES $10 /\left(1-(1 /(1+\text { SE\$ } 10))^{\wedge} \text { B } 353\right)^{*}$ C353 |
| = $3353-1$ | = 1353 | =\$E\$10*C354 | =C354+D354 | $=$ SES $10 /\left(1-(1 /(1+\text { SE\$10) }) \text { B } 354)^{*}\right.$ C354 |
| =B354-1 | = 1354 | =\$E\$10*C355 | =C355+D355 | $=$ SES $10 /\left(1-(1 /(1+\text { SE\$10) }) \text { B } 355)^{*} \mathrm{C} 355\right.$ |
| = B355-1 | =1355 | =\$E\$10*C356 | =C356+D356 | $=$ SE\$ $10 /\left(1-(1 /(1+\text { SE\$10) }) \text { B } 356)^{*} \mathrm{C} 356\right.$ |
| = $3356-1$ | $=1356$ | $=\$ E \$ 10^{*} \mathrm{C} 357$ | =C357+D357 | $=$ \$ES $10 /\left(1-(1 /(1+\text { SE\$10) }) \text { B } 357)^{*}\right.$ C357 |
| =B357-1 | = 1357 | =\$E\$10*C358 | $=\mathrm{C} 358+$ D 358 | $=$ SE\$ $10 /\left(1-(1 /(1+\text { SE\$10) }) \text { B } 358)^{*} \mathrm{C} 358\right.$ |
| =B358-1 | =1358 | $=\$ \mathrm{E}$ \$10*C359 | =C359+D359 | $=$ SE $\$ 10 /\left(1-(1 /(1+\text { SE\$ } 10))^{\text {B }} 3359\right)^{*} \mathrm{C} 359$ |
| =B359-1 | =1359 | =\$E\$10*C360 | =C360+D360 | $=$ SE\$ $10 /\left(1-\left(1 /\left(1+\text { SE\$10) ) }{ }^{\text {B }} 360\right)^{*} \mathrm{C} 360\right.\right.$ |
| =B360-1 | =I360 | =\$E\$10*C361 | =C361+D361 | $=$ SE \$10/(1-(1/(1+\$E\$10) ) $\left.{ }^{\text {B }} 361\right)^{*} \mathrm{C} 361$ |
| =B361-1 | =I361 | =\$E\$10*C362 | =C362+D362 | $=$ SES $10 /\left(1-(1 /(1+\$ E \$ 10))^{\text {B }} 362\right)^{*} \mathrm{C} 362$ |
| =B362-1 | =I362 | =\$E\$10*C363 | =C363+D363 | $=\$ \mathrm{E}$ \$10/(1-(1/(1+\$E\$10)) $\left.{ }^{\text {B }} 363\right)^{*}$ C363 |
| =B363-1 | =1363 | =\$E\$10*C364 | =C364+D364 | $=$ SE\$10/(1-(1/(1+\$E\$10)) $\left.{ }^{\text {B }} 364\right)^{*}$ C364 |
| =B364-1 | =I364 | =\$E\$10*C365 | =C365+D365 | $=$ \$ES10/(1-(1/(1+\$E\$10)) $\left.{ }^{\text {B }} 365\right)^{*} \mathrm{C} 365$ |
| =B365-1 | = 1365 | =\$E\$10*C366 | =C366+D366 | $=$ SES $10 /\left(1-(1 /(1+\text { SE\$ } 10))^{\text {B }} 366\right)^{*} \mathrm{C} 366$ |
| = B366-1 | =I366 | =\$E\$10*C367 | =C367+D367 | $=$ SE\$ $10 /\left(1-\left(1 /(1+\right.\right.$ SE\$10) $)$ 'B367)* ${ }^{\text {C }}$ (367 |
| =B367-1 | =1367 | =\$E\$10*C368 | =C368+D368 | $=$ SE\$10/(1-(1/(1+\$E\$10) ) $\left.{ }^{\text {B }} 368\right)^{*}$ C368 |
| =B368-1 | =I368 | =\$E\$10*C369 | =C369+D369 | $=$ SE\$ $10 /\left(1-(1 /(1+\text { SE\$ } 10))^{\text {B B }} 369\right)^{*}$ C369 |
| =B369-1 | = 1369 | $=\$ E \$ 10 *$ C370 | =C370+D370 | $=$ SE\$10/(1-(1/(1+\$E\$10)) $\left.{ }^{\text {B }} 3370\right)^{*} \mathrm{C} 370$ |
| = B370-1 | =1370 | =\$E\$10*C371 | =C371+D371 | $=$ SES $10 /\left(1-(1 /(1+\text { SE\$10) }) \text { B } 371)^{*}\right.$ C 371 |
| =B371-1 | = 1371 | $=\$ \mathrm{E}$ \$10*C372 | =C372+D372 | $=$ SE\$ $10 /\left(1-(1 /(1+\text { SE\$10) }) \text { B } 372)^{*} \mathrm{C} 372\right.$ |
| =B372-1 | =1372 | $=$ SE\$10*C373 | =C373+D373 | $=$ SE\$ $10 /\left(1-(1 /(1+\text { SE\$10) }) \text { B } 373)^{*}\right.$ C373 |
| = B373-1 | =I373 | $=$ \$E\$10*C374 | =C374+D374 | $=$ SES $10 /\left(1-\left(1 /(1+\text { SE\$10) })^{\text {B }} 3374\right)^{*} \mathrm{C} 374\right.$ |
| =B374-1 | =1374 | $=$ SE\$10*C375 | =C375+D375 | $=$ SE\$ $10 /\left(1-(1 /(1+\text { SE\$10) }) \text { B } 375)^{*} \mathrm{C} 375\right.$ |
| = B375-1 | =1375 | =\$E\$10*C376 | =C376+D376 | $=$ SE\$ $10 /\left(1-(1 /(1+\text { SE\$10) }) \text { B } 376)^{*} \mathrm{C} 376\right.$ |
| =B376-1 | =1376 | =\$E\$10*C377 | =C377+D377 | $=$ SE\$10/(1-(1/(1+\$E\$10)) $\left.{ }^{\text {B }} 3377\right)^{*}$ C377 |
| = B377-1 | =1377 | $=$ \$E\$10*C378 | $=\mathrm{C} 378+$ D 378 | $=$ SE $10 /\left(1-\left(1 /(1+\text { SE\$10) }){ }^{\text {B }} 3378\right)^{*} \mathrm{C} 378\right.$ |
| =B378-1 | $=1378$ | $=$ \$E\$10*C379 | =C379+D379 | $=$ SE\$10/(1-(1/(1+\$E\$10)) $\left.{ }^{\text {B }} 379\right)^{*}$ C379 |
|  |  |  |  |  |
|  |  | =SUM(D20-D379) |  | =SUM(F20-F379) |
|  |  | Total |  | Total |
|  |  | Interest |  | Payments |
|  |  | Paid |  | Made |


| =PMT(E\$10,B352,-C352) | =F352-D352 | = $\mathrm{C} 352-\mathrm{H} 352$ |
| :---: | :---: | :---: |
| =PMT(E\$10,B353,-C353) | =F353-D353 | =C353-H353 |
| =PMT(E\$10,B354,-C354) | =F354-D354 | =C354-H354 |
| =PMT(E\$10,B355,-C355) | =F355-D355 | =C355-H355 |
| =PMT(E\$10,B356,-C356) | =F356-D356 | =C356-H356 |
| =PMT(E\$10,B357,-C357) | =F357-D357 | =C357-H357 |
| =PMT(E\$10,B358,-C358) | =F358-D358 | =C358-H358 |
| =PMT(E\$10,B359,-C359) | =F359-D359 | = $\mathrm{C} 359-\mathrm{H} 359$ |
| =PMT(E\$10,B360,-C360) | =F360-D360 | = C360-H360 |
| =PMT(E\$10,B361,-C361) | =F361-D361 | = C361-H361 |
| =PMT(E\$10,B362,-C362) | =F362-D362 | =C362-H362 |
| =PMT(E\$10,B363,-C363) | =F363-D363 | =C363-H363 |
| =PMT(E\$10,B364,-C364) | =F364-D364 | =C364-H364 |
| =PMT(E\$10,B365,-C365) | =F365-D365 | = C365-H365 |
| =PMT(E\$10,B366,-C366) | =F366-D366 | =C366-H366 |
| =PMT(E\$10,B367,-C367) | =F367-D367 | =C367-H367 |
| =PMT(E\$10,B368,-C368) | =F368-D368 | =C368-H368 |
| $=$ PMT(E\$10,B369,-C369) | =F369-D369 | =C369-H369 |
| =PMT(E\$10,B370,-C370) | =F370-D370 | =C370-H370 |
| =PMT(E\$10,B371,-C371) | =F371-D371 | =C371-H371 |
| =PMT(E\$10,B372,-C372) | =F372-D372 | =C372-H372 |
| =PMT(E\$10,B373,-C373) | =F373-D373 | = $\mathrm{C} 373-\mathrm{H} 373$ |
| =PMT(E\$10,B374,-C374) | =F374-D374 | =C374-H374 |
| =PMT(E\$10,B375,-C375) | =F375-D375 | =C375-H375 |
| =PMT(E\$10,B376-C376) | =F376-D376 | = $\mathrm{C} 376-\mathrm{H} 376$ |
| =PMT(E\$10,B377,-C377) | =F377-D377 | =C377-H377 |
| =PMT(E\$10,B378,-C378) | =F378-D378 | =C378-H378 |
| =PMT(E\$10,B379,-C379) | =F379-D379 | = $\mathrm{C} 379-\mathrm{H} 379$ |
|  |  |  |
|  | =SUM(H20-H379) |  |
|  | Total |  |
|  | Principal |  |
|  | Repaid |  |

