```
(* First matrix*)
```

In[514]:=
```
m1 = 5;
A = RandomReal[{-1, 1}, {m1, m1}];
MatrixForm[A];
timing1 = AbsoluteTiming[{Q1, R1} = QRDecomposition[A]];
timeA = timing1[[1]]
```

Out[518]= 0.0000249

```
(* Second Matrix*)
```

In[519]:=
```
m2 = 6;
n2 = 3;
B = RandomReal[{-1, 1}, {m2, n2}];
MatrixForm[B];
timing2 = AbsoluteTiming[{Q2, R2} = QRDecomposition[B]];
timeB = timing2[[1]]
```

Out[524]= 0.0000226

```
(*Third Matrix*)
```

In[525]:=
```
m3 = 7;
n3 = 3;
R = RandomReal[{-1, 1}, {m3, n3}];
MatrixForm[R];
timing3 = AbsoluteTiming[{Q3, R3} = QRDecomposition[R]];
timeR = timing3[[1]]
```

Out[530]= 0.0000354

In[204]:=
```
(*Fourth matrix*)
```

In[531]:=
```
m4 = 8;
S = RandomReal[{-1, 1}, {m4, m4}];
MatrixForm[S];
timing4 = AbsoluteTiming[{Q4, R4} = QRDecomposition[S]];
timeS = timing4[[1]]
```

Out[535]= 0.000024

```
(* Fifth Matrix*)
```

In[536]:=
```
m5 = 10;
n5 = 8;
M = RandomReal[{-1, 1}, {m5, n5}];
MatrixForm[M];
timing5 = AbsoluteTiming[{Q5, R5} = QRDecomposition[M]];
timeM = timing5[[1]]
```

Out[541]= 0.0000274

```
(* Sixth Matrix*)
```

In[542]:=
```
m6 = 15;
n6 = 12;
U = RandomReal[{-1, 1}, {m6, n6}];
MatrixForm[U];
timing6 = AbsoluteTiming[{Q6, R6} = QRDecomposition[U]];
timeU = timing6[[1]]
```

Out[547]= 0.000043

```
(* Seventh Matrix*)
```

In[548]:=
```
m7 = 20;
V = RandomReal[{-1, 1}, {m7, m7}];
MatrixForm[V];
timing7 = AbsoluteTiming[{Q7, R7} = QRDecomposition[V]];
timeV = timing7[[1]]
```

Out[552]= 0.0001018

```
(*Eighth Matrix*)
```

In[553]:=
```
m8 = 56;
n8 = 52;
X = RandomReal[{-1, 1}, {m8, n8}];
MatrixForm[X];
timing8 = AbsoluteTiming[{Q8, R8} = QRDecomposition[X]];
timeX = timing8[[1]]
```

Out[558]= 0.0008945

```
(*Ninth Matrix*)
```

In[559]:=
```
m9 = 100;
Y = RandomReal[{-1, 1}, {m9, m9}];
MatrixForm[Y];
timing9 = AbsoluteTiming[{Q9, R9} = QRDecomposition[Y]];
timeY = timing9[[1]]
```

Out[563]= 0.0009587

```
(*Tenth Matrix*)
```

In[564]:=
```
m10 = 88;
n10 = 45;
Z = RandomReal[{-1, 1}, {m10, n10}];
MatrixForm[Z];
timing10 = AbsoluteTiming[{Q10, R10} = QRDecomposition[Z]];
timeZ = timing10[[1]]
```

Out[569]= 0.0007137

```
listTime = list{timeA, timeB, timeR, timeS, timeM, timeU, timeV, timeX, timeY, timeZ}
```

Out[570]= {0.0000249 list, 0.0000226 list, 0.0000354 list, 0.000024 list, 0.0000274 list,
0.000043 list, 0.0001018 list, 0.0008945 list, 0.0009587 list, 0.0007137 list}

In[573]:=
```
Export["timing.csv", listTime, "CSV"]
```

Out[573]= timing.csv