Squares and Square Roots Ex 3.5 Q1

Answer :

(i)

```
          112
      1 | 12544
      1 | 1
     21 | 025
      1 | 21
    222 |   444
      2 |   444
      _____
              0
```

Hence, the square root of 12544 is 112.

(ii)

```
          312
      3 | 97344
      3 | 9
     61 | 073
      1 | 61
    622 | 1244
      2 | 1244
      _____
              0
```

Hence, the square root of 97344 is 312.

(iii)

```
             535
         5 | 286225
         5 | 25
      ─────────────
       103 | 362
         3 | 309
      ─────────────
      1065 | 5325
         5 | 5325
      ─────────────
           |    0
```

Hence, the square root of 286225 is 535.

(iv)

```
             625
         6 | 390625
         6 | 36
      ─────────────
       122 | 306
         2 | 244
      ─────────────
      1245 | 6225
         5 | 6225
      ─────────────
           |    0
```

Hence, the square root of 390625 is 625.

(v)

```
            603
        ┌─────────
    6   │ 363609
    6   │ 36
 ───────┼─────────
 1203   │ 03609
    3   │  3609
 ───────┼─────────
        │     0
```

Hence, the square root of 363609 is 603.

(vi)

```
            987
        ┌─────────
    9   │ 974169
    9   │ 81
 ───────┼─────────
  188   │ 1641
    8   │ 1504
 ───────┼─────────
 1967   │ 13769
    7   │ 13769
 ───────┼─────────
        │     0
```

Hence, the square root of 974169 is 987.

(vii)

```
              347
    3 | 120409
    3 | 9
   ───────────
   64 | 304
    4 | 256
   ───────────
  687 | 4809
    7 | 4809
   ───────────
      |    0
```

Hence, the square root of 120409 is 347.

(viii)

```
              1213
    1 | 1471369
    1 | 1
   ─────────────
   22 | 047
    2 | 44
   ─────────────
  241 | 313
    1 | 241
   ─────────────
 2423 | 7269
    3 | 7269
   ─────────────
      |    0
```

Hence, the square root of 1471369 is 1213.

(ix)

```
            540
      5 | 291600
      5 | 25
    ─────────────
    104 | 416
      4 | 416
    ─────────────
   1080 | 000
      0 |  00
    ─────────────
          |    0
```

Hence, the square root of 291600 is 540.

(x)

```
           3107
      3 | 9653449
      3 | 9
    ─────────────
     61 | 065
      1 |  61
    ─────────────
   6207 | 43449
      7 | 43449
    ─────────────
          |    0
```

Hence, the square root of 9653449 is 3107.

(xi)

```
          1321
     1 | 1745041
     1 | 1
    ──────────
    23 | 074
     3 | 69
    ──────────
   262 |   550
     2 |   524
    ──────────
  2641 |    2641
     1 |    2641
    ──────────
       |       0
```

Hence, the square root of 1745041 is 1321.

(xii)

```
          2002
     2 | 4008004
     2 | 4
    ──────────
    40 | 000
     0 | 00
    ──────────
   400 |   080
     0 |    00
    ──────────
  4002 |    8004
     2 |    8004
    ──────────
       |       0
```

Hence, the square root of 4008004 is 2002.

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