**a) What is the square number b) Prove that 32 is not a perfect**

**that goes with the diagram? square number.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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**Complete the following table:**

|  |  |  |
| --- | --- | --- |
| 42 | 4 x 4 | 16 |
| 52 |  |  |
|  | 7 x 7 |  |
|  |  | 121 |
|  |  | 9 |
| 12 |  |  |
|  | 10 x 10 |  |

**What are the square roots of the following:**

a) √81 = b) √16 = c) √36 =

d) √64 = e) √169 = f) √400 =

**Match each number in column 1 to the number that is equal to it in column** **2.**

**Column 1 Column 2**

1. √9 i) 9
2. 81 ii) 92
3. 32 iii) √81
4. 9 iv) 3

**Use the number line to complete each statement below.**

ie) To solve for √10:

√10 lies between √9 and √16 so √10 must have a value between 3 and 4, but closer to 3.

6

5

4

3

2

1

0

a) √5 lies between \_\_\_ and \_\_\_ therefore the √5 is \_\_\_

b) √20 lies between \_\_\_ and \_\_\_ therefore the √20 is \_\_\_

c) √10 lies between \_\_\_ and \_\_\_ therefore the √10 is \_\_\_

d) √2 lies between \_\_\_ and \_\_\_ therefore the √2 is \_\_\_

**Estimate the following square roots:**

g) √20 = h) √17 = i) √40 =

j) √50 = k) √2 = l) √150 =

m) √135 = n) √108 = o) √167 =

p) √188 = q) √57 = r) √99 =

**If you multiply a perfect square by a different perfect square, is the answer also a perfect square? Give examples to explain.**