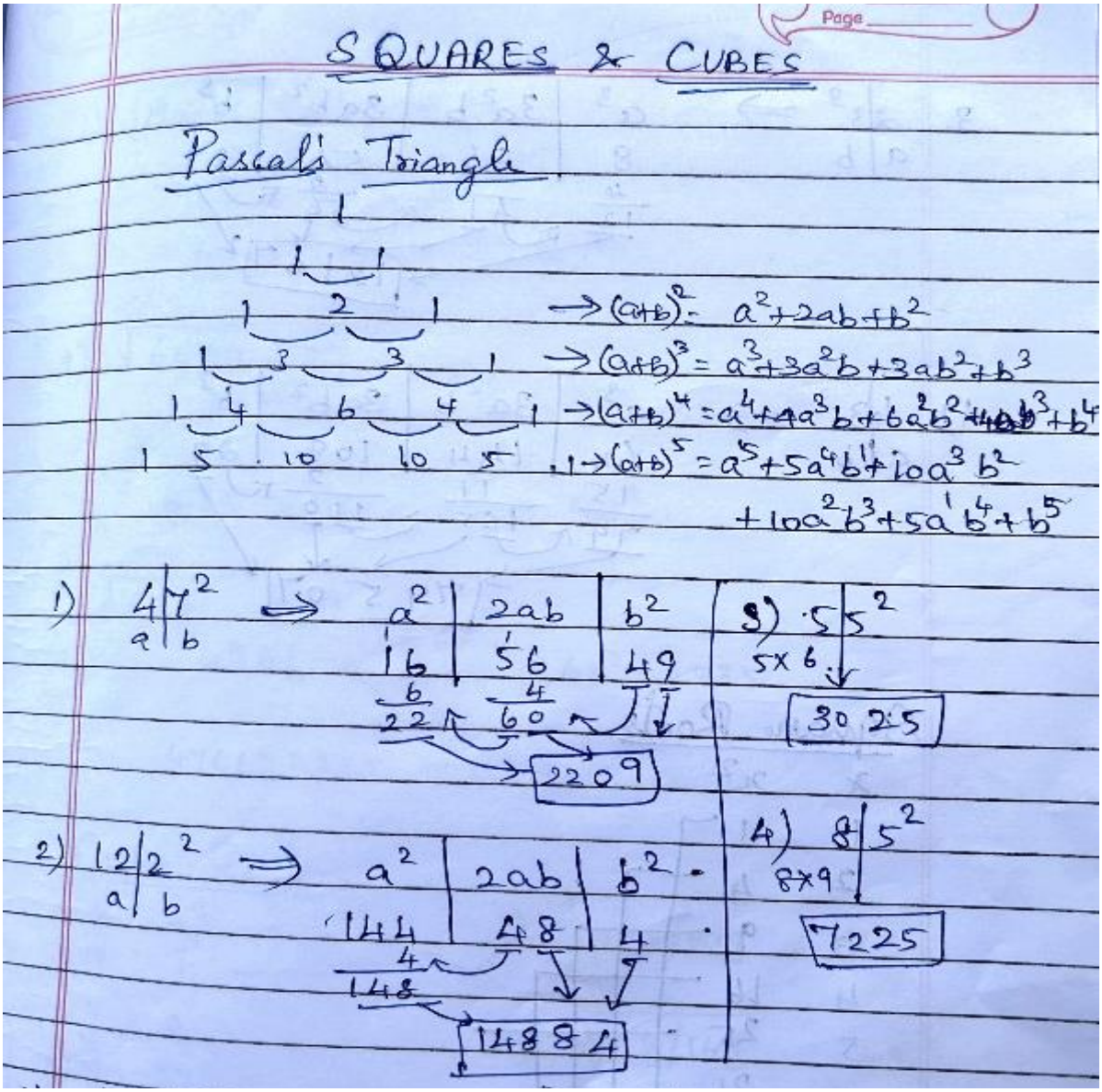
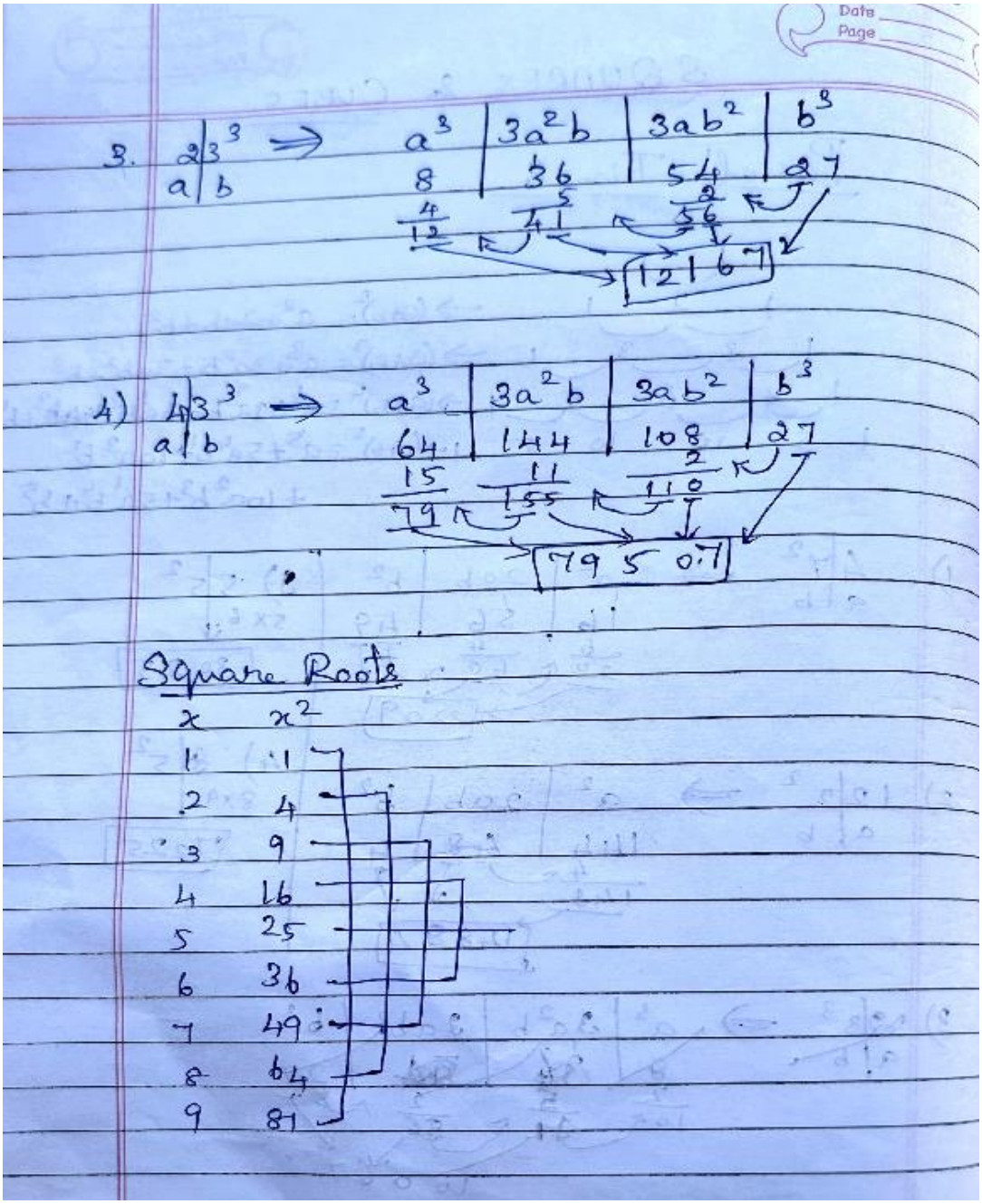
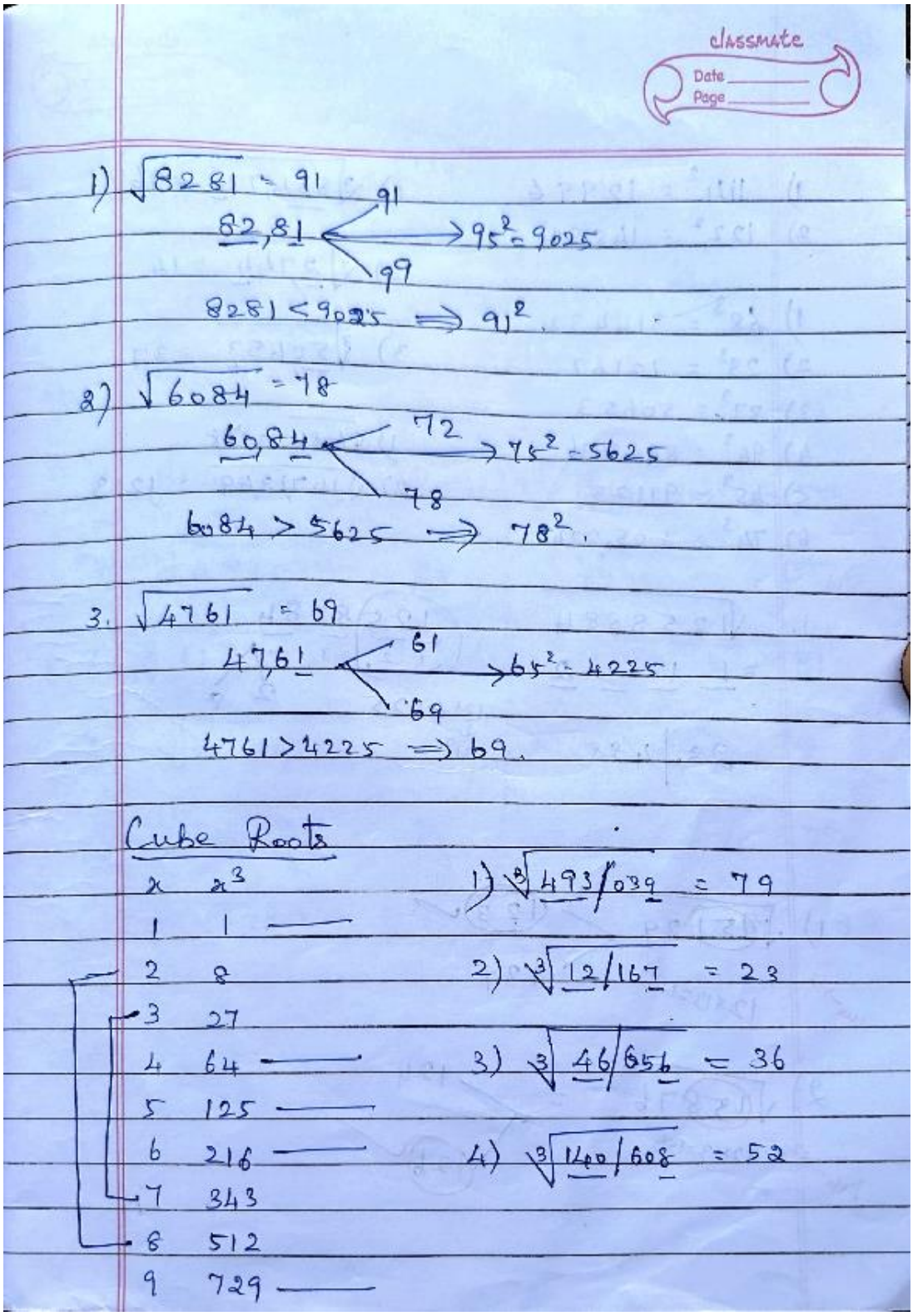
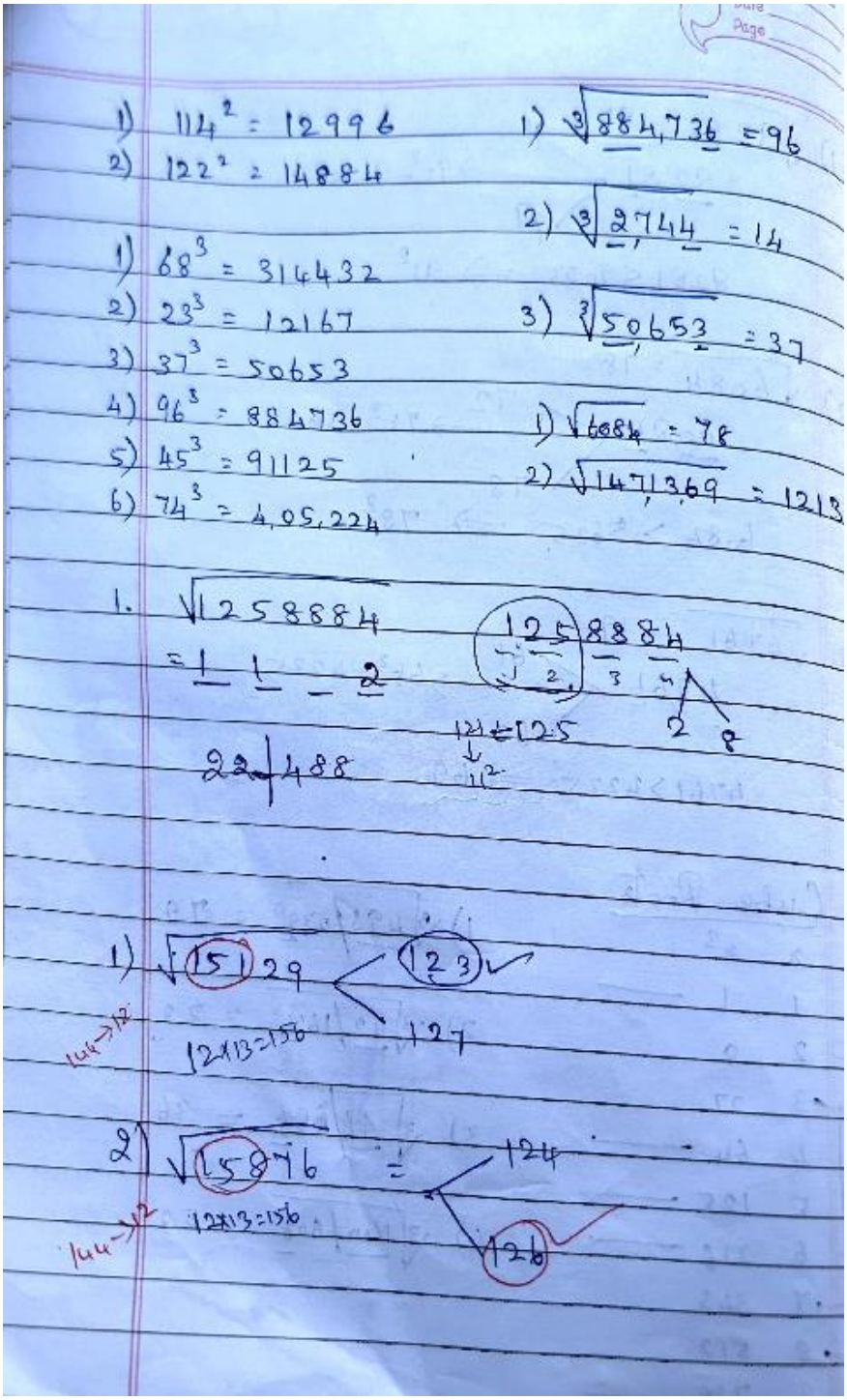
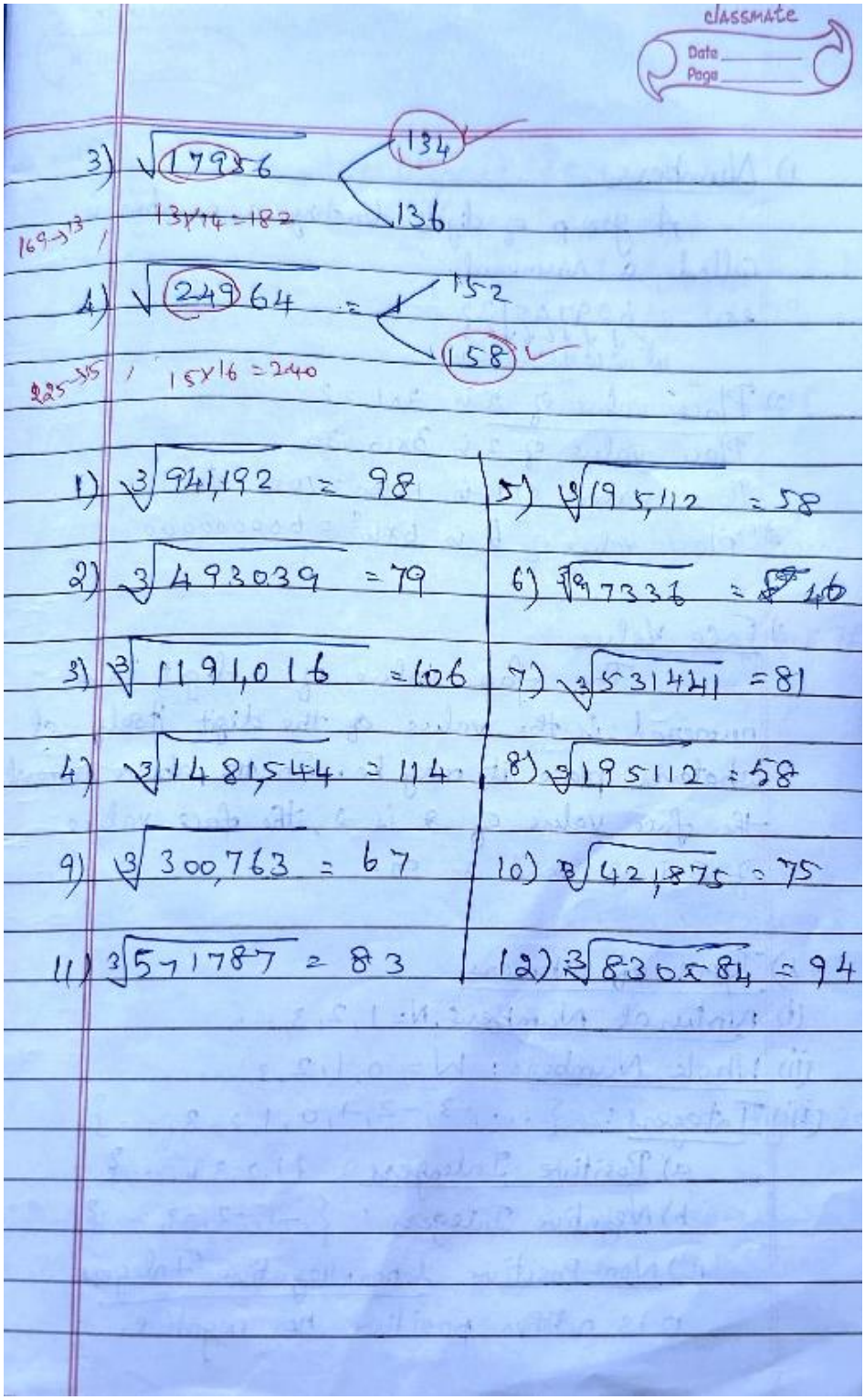

SQUARES & CUBES
Pascal's Triangle
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
1 5 10 10 5 1
→ (a+b)² = a²+2ab+b²
→ (a+b)³ = a³+3a²b+3ab²+b³
→ (a+b)⁴ = a⁴+4a³b+6a²b²+4ab³+b⁴
→ (a+b)⁵ = a⁵+5a⁴b+10a³b²+10a²b³+5ab⁴+b⁵
1) 47² ⇒ a² 2ab b² ⇒ 16 56 49 ⇒ 2209
2) 12|2² ⇒ a² 2ab b² ⇒ 144 48 4 ⇒ 14884
3) 5|5² ⇒ 5×6 ⇒ 3025
4) 8|5² ⇒ 8×9 ⇒ 7225


3. (2|3)^3 ⇒ a|b
a^3 | 3a^2b | 3ab^2 | b^3
8 | 36 | 54 | 27
4 5 2
12 41 56
1216 7
4) (4|3)^3 ⇒ a|b
a^3 | 3a^2b | 3ab^2 | b^3
64 | 144 | 108 | 27
15 11 2
79 155 110
79 5 0.7
Square Roots
x x^2
1 1
2 4
3 9
4 16
5 25
6 36
7 49
8 64
9 81


classmate
Date
Page
1) $\sqrt{8281} = 91$
82,81
91
99
$95^2 = 9025$
$8281 < 9025 \Rightarrow 91^2$.
2) $\sqrt{6084} = 78$
60,84
72
78
$75^2 = 5625$
$6084 > 5625 \Rightarrow 78^2$.
3. $\sqrt{4761} = 69$
47,61
61
69
$65^2 = 4225$
$4761 > 4225 \Rightarrow 69$.
Cube Roots
x x^3
1 1
2 8
3 27
4 64
5 125
6 216
7 343
8 512
9 729
1) $\sqrt[3]{493039} = 79$
2) $\sqrt[3]{12167} = 23$
3) $\sqrt[3]{46656} = 36$
4) $\sqrt[3]{140608} = 52$


1) 114² = 12996
2) 122² = 14884
1) 68³ = 314432
2) 23³ = 12167
3) 37³ = 50653
4) 96³ = 884736
5) 45³ = 91125
6) 74³ = 4,05,224
1) ∛884,736 = 96
2) ∛2744 = 14
3) ∛50653 = 37
1) √6084 = 78
2) √1471369 = 1213
1. √258884
= 1 1 2
22 | 488
125 8884
121 < 125
11²
1) √15129
123
127
12×13=156
144→12
2) √15876
124
126
12×13=156
144→12


classmate
Date
Page
3) √17956 = 134
136
169→13 / 13×14 = 182
4) √24964 = 152
158
225→15 / 15×16 = 240
1) ∛941,192 = 98
2) ∛493039 = 79
3) ∛1191,016 = 106
4) ∛1481,544 = 114
5) ∛195,112 = 58
6) ∛97336 = 46
7) ∛531441 = 81
8) ∛195112 = 58
9) ∛300,763 = 67
10) ∛42,875 = 75
11) ∛571787 = 83
12) ∛830584 = 94