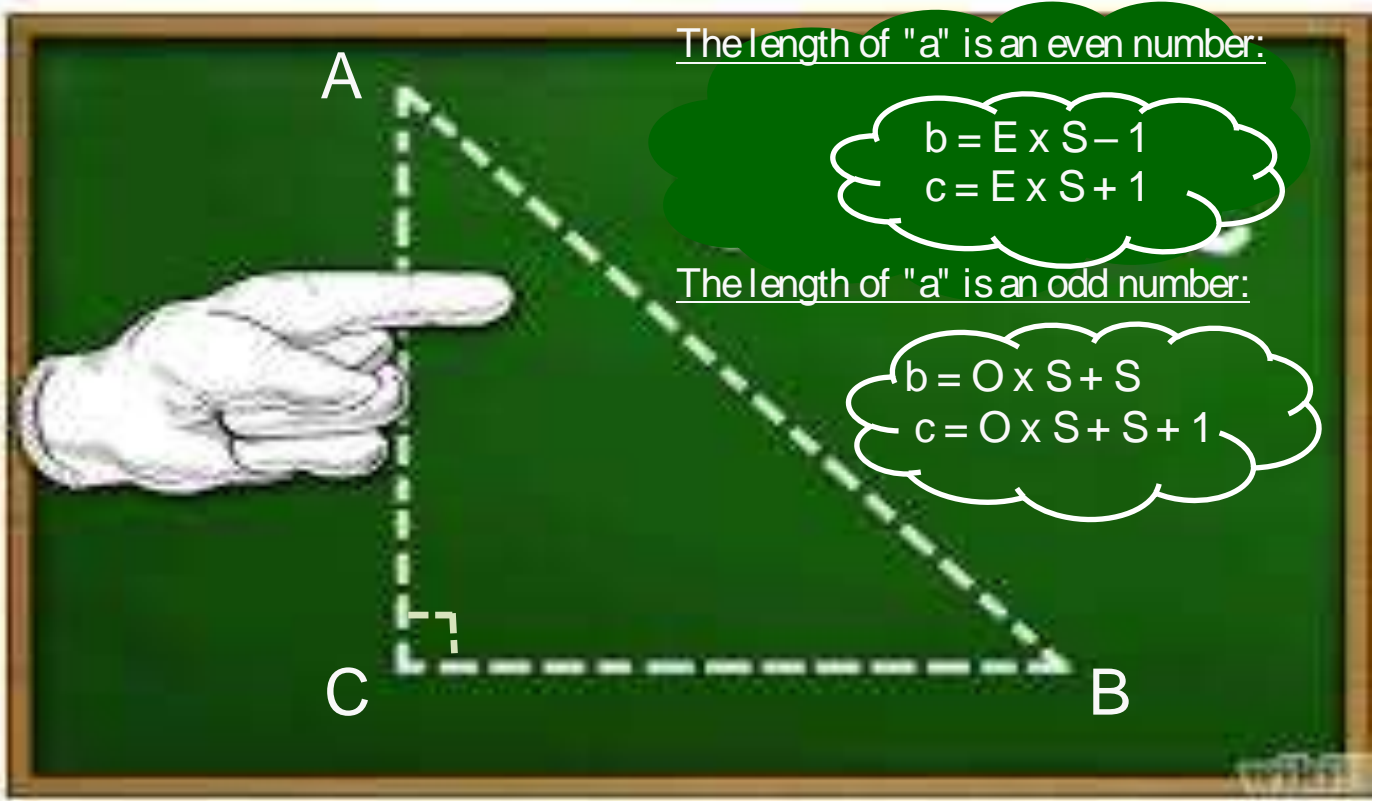


MJN's Serial no.-Method of right-angled triangles



In right angled-triangle:

When one side "a" of a right triangle is known, you can find the sides' b and c.

There are 2 situations:

a is an even number (starting at number 4)

a is an odd number (starting at number 3)

The story began with the smallest and perhaps best-known triple, the (3, 4, 5).

I have noticed the following:

If the length of "a" is an even number, then

b = even no. x serial no. - 1

c = even no. x serial no. + 1

$b = E.S - 1$

$c = E.S + 1$

or

$c = b + 2$

If the length of "a" is an odd number, then

b = odd no. x serial no. + Serial no.

c = odd no. x serial no. + Serial no. + 1

$b = O.S + S$

$b = O.S + S + 1$

or

$c = b + 1$

How to find a serial number of even numbers?

Divide by 4 or divide by 2 two times:

Ex.1: What is a serial number of 24 and 52?

$$24: 4 = \underline{6} \quad 52: 4 = \underline{13}$$

Ex. 2: What is a serial number to 26 and 54?

$$26: 4 = \underline{6,5} \quad 54 : 4 = \underline{13,5}$$

Or

26 are between 24 and 28, where the two numbers are divisible by 4.

Serial no. of 24 is 6 and serial no. of 28 is 7.

26's serial no. is between serial numbers of 24 and 28, i.e. $(6 + 7):2 = \underline{6,5}$.

By the same way:

54 are between 52 and 56, where the two numbers are divisible by 4.

Serial no. of 52 is 13 and serial no. of 56 is 14.

54's serial no. is between serial numbers of 52 and 56, i.e. $(13 + 14):2 = \underline{13,5}$.

a er lige	4	6	8	10	12	14	16	18	20	22	24	26	28	30
Serie nr.	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	7,5

How to find a serial number of odd numbers?

Subtract 1 from an odd number and divide by 2 or divide an odd number by 2 and remove decimals.

For example: What is serial number to 51 and 99?

(Odd number - 1):2

$$(51 - 1): 2 = \underline{25}$$

or

(Odd number: 2)

$$(51: 2 = 25,5 \rightarrow \underline{25})$$

$$(63 - 1): 2 = \underline{31}$$

or

$$(63: 2 = 31,5 \rightarrow \underline{31})$$

a er ulige	3	5	7	9	11	13	15	17	19	21	23	25	27	29
Serie nr.	1	2	3	4	5	6	7	8	9	10	11	12	13	14

Here are two lists of Triples, when "a" is even number and "a" is odd number. The different between b and c is either 1 or 2.

Serial no.	a is even	b	c	Tripel
1	4	$4 \times 1 - 1 = 3$	$4 \times 1 + 1 = 5$	(4, 3, 5)
1,5	6	$6 \times 1,5 - 1 = 8$	$6 \times 1,5 + 1 = 10$	(6, 8, 10)
2	8	$8 \times 2 - 1 = 15$	$8 \times 2 + 1 = 17$	(8, 15, 17)
2,5	10	$10 \times 2,5 - 1 = 24$	$10 \times 2,5 + 1 = 26$	(10, 24, 26)
3	12	$12 \times 3 - 1 = 35$	$12 \times 3 + 1 = 37$	(12, 35, 37)
3,5	14	$14 \times 3,5 - 1 = 48$	$14 \times 3,5 + 1 = 50$	(14, 48, 50)
4	16	$16 \times 4 - 1 = 63$	$16 \times 4 + 1 = 65$	(16, 63, 65)
4,5	18	$18 \times 4,5 - 1 = 80$	$18 \times 4,5 + 1 = 82$	(18, 80, 82)
5	20	$20 \times 5 - 1 = 99$	$20 \times 5 + 1 = 101$	(20, 99, 101)
5,5	22	$22 \times 5,5 - 1 = 120$	$22 \times 5,5 + 1 = 122$	(22, 120, 122)
6	24	$24 \times 6 - 1 = 143$	$24 \times 6 + 1 = 145$	(24, 143, 145)
6,5	26	$26 \times 6,5 - 1 = 168$	$26 \times 6,5 + 1 = 170$	(26, 168, 170)
7	28	$28 \times 7 - 1 = 195$	$28 \times 7 + 1 = 197$	(28, 195, 197)
7,5	30	$30 \times 7,5 - 1 = 224$	$30 \times 7,5 + 1 = 226$	(30, 224, 226)
8	32	$32 \times 8 - 1 = 255$	$32 \times 8 + 1 = 257$	(32, 255, 257)
8,5	34	$34 \times 8,5 - 1 = 288$	$34 \times 8,5 + 1 = 290$	(34, 288, 290)
9	36	$36 \times 9 - 1 = 323$	$36 \times 9 + 1 = 325$	(36, 323, 325)
9,5	38	$38 \times 9,5 - 1 = 360$	$38 \times 9,5 + 1 = 362$	(38, 360, 362)
10	40	$40 \times 10 - 1 = 399$	$40 \times 10 + 1 = 401$	(40, 399, 401)
10,5	42	$42 \times 10,5 - 1 = 440$	$42 \times 10,5 + 1 = 442$	(42, 440, 442)
11	44	$44 \times 11 - 1 = 483$	$44 \times 11 + 1 = 485$	(44, 483, 485)
11,5	46	$46 \times 11,5 - 1 = 528$	$46 \times 11,5 + 1 = 530$	(46, 528, 530)
12	48	$48 \times 12 - 1 = 575$	$48 \times 12 + 1 = 576$	(48, 575, 577)
12,5	50	$50 \times 12,5 - 1 = 624$	$50 \times 12,5 + 1 = 626$	(50, 624, 626)
13	52	$52 \times 13 - 1 = 675$	$52 \times 13 + 1 = 677$	(52, 675, 677)
13,5	54	$54 \times 13,5 - 1 = 728$	$54 \times 13,5 + 1 = 730$	(54, 728, 730)
14	56	$56 \times 14 - 1 = 783$	$56 \times 14 + 1 = 785$	(56, 783, 785)

14,5	58	$58 \times 14,5 - 1 = 840$	$58 \times 14,5 + 1 = 842$	(58, 840, 842)
15	60	$60 \times 15 - 1 = 899$	$60 \times 15 + 1 = 901$	(60, 899, 901)
15,5	62	$62 \times 15,5 - 1 = 960$	$62 \times 15,5 + 1 = 962$	(62, 960, 962)
16	64	$64 \times 16 - 1 = 1023$	$64 \times 16 + 1 = 1025$	(64, 1023, 1025)
16,5	66	$66 \times 16,5 - 1 = 1088$	$66 \times 16,5 + 1 = 1090$	(66, 1088, 1090)
17	68	$68 \times 17 - 1 = 1155$	$68 \times 17 + 1 = 1157$	(68, 1155, 1157)
17,5	70	$70 \times 17,5 - 1 = 1224$	$70 \times 17,5 + 1 = 1226$	(70, 1224, 1226)
18	72	$72 \times 18 - 1 = 1295$	$72 \times 18 + 1 = 1297$	(72, 1295, 1297)
18,5	74	$74 \times 18,5 - 1 = 1368$	$74 \times 18,5 + 1 = 1370$	(74, 1368, 1370)
19	76	$76 \times 19 - 1 = 1443$	$76 \times 19 + 1 = 1445$	(76, 1443, 1445)
19,5	78	$78 \times 19,5 - 1 = 1520$	$78 \times 19,5 + 1 = 1522$	(78, 1520, 1522)
20	80	$80 \times 20 - 1 = 1599$	$80 \times 20 + 1 = 1601$	(80, 1599, 1601)
20,5	82	$82 \times 20,5 - 1 = 1680$	$82 \times 20,5 + 1 = 1682$	(82, 1680, 1682)
21	84	$84 \times 21 - 1 = 1763$	$84 \times 21 + 1 = 1765$	(84, 1763, 1765)
21,5	86	$86 \times 21,5 - 1 = 1848$	$86 \times 21,5 + 1 = 1850$	(86, 1848, 1850)
22	88	$88 \times 22 - 1 = 1935$	$88 \times 22 + 1 = 1937$	(88, 1935, 1937)
22,5	90	$90 \times 22,5 - 1 = 2024$	$90 \times 22,5 + 1 = 2026$	(90, 2024, 2026)
23	92	$92 \times 23 - 1 = 2115$	$92 \times 23 + 1 = 2117$	(92, 2115, 2117)
23,5	94	$94 \times 23,5 - 1 = 2208$	$94 \times 23,5 + 1 = 2210$	(94, 2208, 2210)
24	96	$96 \times 24 - 1 = 2303$	$96 \times 24 + 1 = 2305$	(96, 2303, 2305)
24,5	98	$98 \times 24,5 - 1 = 2400$	$98 \times 24,5 + 1 = 2402$	(98, 2400, 2402)
25	100	$100 \times 25 - 1 = 2499$	$100 \times 25 + 1 = 2501$	(100, 2499, 2501)
25,5	102	$102 \times 25,5 - 1 = 2600$	$102 \times 25,5 + 1 = 2602$	(102, 2600, 2602)
26	104	$104 \times 26 - 1 = 2703$	$104 \times 26 + 1 = 2705$	(104, 2703, 2705)
26,5	106	$106 \times 26,5 - 1 = 2808$	$106 \times 26,5 + 1 = 2810$	(106, 2808, 2810)
27	108	$108 \times 27 - 1 = 2915$	$108 \times 27 + 1 = 2917$	(108, 2915, 2917)
27,5	110	$110 \times 27,5 - 1 = 3024$	$110 \times 27,5 + 1 = 3026$	(110, 3024, 3026)

And so on

Serial no.	a is odd	b	c	Tripel
1	3	$3 \times 1 + 1 = 4$	$4 + 1 = 5$	(3, 4, 5)
2	5	$5 \times 2 + 2 = 12$	$12 + 1 = 13$	(5, 12, 13)
3	7	$7 \times 3 + 3 = 24$	$24 + 1 = 25$	(7, 24, 25)
4	9	$9 \times 4 + 4 = 40$	$40 + 1 = 41$	(9, 40, 41)
5	11	$11 \times 5 + 5 = 60$	$60 + 1 = 61$	(11, 60, 61)
6	13	$13 \times 6 + 6 = 84$	$84 + 1 = 85$	(13, 84, 85)
7	15	$15 \times 7 + 7 = 112$	$112 + 1 = 113$	(15, 112, 113)
8	17	$17 \times 8 + 8 = 144$	$144 + 1 = 145$	(17, 144, 145)
9	19	$19 \times 9 + 9 = 180$	$180 + 1 = 181$	(19, 180, 181)
10	21	$21 \times 10 + 10 = 220$	$220 + 1 = 221$	(21, 220, 221)
11	23	$23 \times 11 + 11 = 264$	$264 + 1 = 265$	(23, 264, 265)
12	25	$25 \times 12 + 12 = 312$	$312 + 1 = 313$	(25, 312, 313)
13	27	$27 \times 13 + 13 = 364$	$364 + 1 = 365$	(27, 364, 365)
14	29	$29 \times 14 + 14 = 420$	$420 + 1 = 421$	(29, 420, 421)
15	31	$31 \times 15 + 15 = 480$	$480 + 1 = 481$	(31, 480, 481)
16	33	$33 \times 16 + 16 = 544$	$544 + 1 = 545$	(33, 544, 545)
17	35	$35 \times 17 + 17 = 612$	$612 + 1 = 613$	(35, 612, 613)
18	37	$37 \times 18 + 18 = 684$	$684 + 1 = 685$	(37, 684, 685)
19	39	$39 \times 19 + 19 = 760$	$760 + 1 = 761$	(39, 760, 761)
20	41	$41 \times 20 + 20 = 840$	$840 + 1 = 841$	(41, 840, 841)
21	43	$43 \times 21 + 21 = 924$	$924 + 1 = 925$	(43, 924, 925)
22	45	$45 \times 22 + 22 = 1012$	$1012 + 1 = 1013$	(45, 1012, 1013)
23	47	$47 \times 23 + 23 = 1104$	$1104 + 1 = 1105$	(47, 1104, 1105)
24	49	$49 \times 24 + 24 = 1200$	$1200 + 1 = 1201$	(49, 1200, 1201)
25	51	$51 \times 25 + 25 = 1300$	$1300 + 1 = 1301$	(51, 1300, 1301)
26	53	$53 \times 26 + 26 = 1404$	$1404 + 1 = 1405$	(53, 1404, 1405)

27	55	$55 \times 27 + 27 = 1512$	$1512 + 1 = 1513$	(55, 1512, 1513)
28	57	$57 \times 28 + 28 = 1624$	$1624 + 1 = 1625$	(57, 1624, 1625)
29	59	$59 \times 29 + 29 = 1740$	$1740 + 1 = 1741$	(59, 1740, 1741)
30	61	$61 \times 30 + 30 = 1860$	$1860 + 1 = 1861$	(61, 1860, 1861)
31	63	$63 \times 31 + 31 = 1984$	$1984 + 1 = 1985$	(63, 1984, 1985)
32	65	$65 \times 32 + 32 = 2112$	$2112 + 1 = 2113$	(65, 2112, 2113)
33	67	$67 \times 33 + 33 = 2244$	$2244 + 1 = 2245$	(67, 2244, 2245)
34	69	$69 \times 34 + 34 = 2380$	$2380 + 1 = 2381$	(69, 2380, 2381)
35	71	$71 \times 35 + 35 = 2520$	$2520 + 1 = 2521$	(71, 2520, 2521)
36	73	$73 \times 36 + 36 = 2664$	$2664 + 1 = 2665$	(73, 2664, 2665)
37	75	$75 \times 37 + 37 = 2812$	$2812 + 1 = 2813$	(75, 2812, 2813)
38	77	$77 \times 38 + 38 = 2964$	$2964 + 1 = 2965$	(77, 2964, 2965)
39	79	$79 \times 39 + 39 = 3120$	$3120 + 1 = 3121$	(79, 3120, 3121)
40	81	$81 \times 40 + 40 = 3280$	$3280 + 1 = 3281$	(81, 3280, 3281)
41	83	$83 \times 41 + 41 = 3444$	$3444 + 1 = 3445$	(83, 3444, 3445)
42	85	$85 \times 42 + 42 = 3612$	$3612 + 1 = 3613$	(85, 3612, 3613)
43	87	$87 \times 43 + 43 = 3784$	$3784 + 1 = 3785$	(87, 3784, 3785)
44	89	$89 \times 44 + 44 = 3960$	$3960 + 1 = 3961$	(89, 3960, 3961)
45	91	$91 \times 45 + 45 = 4140$	$4140 + 1 = 4141$	(91, 4140, 4141)
46	93	$93 \times 46 + 46 = 4324$	$4324 + 1 = 4325$	(93, 4324, 4325)
47	95	$95 \times 47 + 47 = 4512$	$4512 + 1 = 4513$	(95, 4512, 4513)
48	97	$97 \times 48 + 48 = 4704$	$4704 + 1 = 4705$	(97, 4704, 4705)
49	99	$99 \times 49 + 49 = 4900$	$4900 + 1 = 4901$	(99, 4900, 4901)
50	101	$101 \times 50 + 50 = 5100$	$5100 + 1 = 5101$	(101, 5100, 5101)
51	103	$103 \times 51 + 51 = 5304$	$5304 + 1 = 5305$	(103, 5304, 5305)
52	105	$105 \times 52 + 52 = 5512$	$5512 + 1 = 5513$	(105, 5512, 5513)
53	107	$107 \times 53 + 53 = 5724$	$5724 + 1 = 5725$	(107, 5724, 5725)
54	109	$109 \times 54 + 54 = 5940$	$5940 + 1 = 5941$	(109, 5940, 5941)

And so on