HOW TALL ARE YOU?

How Tall Are You?

Try measuring yourself in nanometers!

Are you super tall—or is a nanometer super small?

One meter is a billion nanometers. (A meter is a little longer than a yard.)

So if you're a little over three feet tall, you measure a billion nanometers! That sounds pretty impressive, but it doesn't mean that you're super tall—it means that a nanometer is incredibly small.

Here are some other ways to think about how tiny a nanometer is:

- The ridges in your fingerprints are around 250,000 nanometers wide.
- A strand of your hair is around 75,000 nanometers wide.
- Your DNA is 2 nanometers wide.
- Your fingernails grow 1 nanometer every second.

What's measured in nanometers?

A nanometer is a billionth of a meter. That's really, really tiny!

Nanometers are used to measure things that are too small to see, like parts of a cell or DNA. It takes a lot of nanometers to measure something relatively big, like you.

A child is about 1,000,000,000 nanometers tall.

A red blood cell is about 10,000 nanometers wide.

DNA is about 2 nanometers wide.

1,920,000,000 nanometers — 192 cm
1,910,000,000 nm — 191
1,900,000,000 nanometers (one billion, nine hundred million nanometers) — 190 cm — 75
1,890,000,000 nm — 189
1,880,000,000 nm — 188 — 74
1,870,000,000 nm — 187
1,860,000,000 nm — 186
1,850,000,000 nm — 185 — 73
1,840,000,000 nm — 184
1,830,000,000 nm — 183 — 72 in 6 feet
1,820,000,000 nm — 182
1,810,000,000 nm — 181
1,800,000,000 nanometers (one billion, eight hundred million nanometers) — 180 cm — 71
1,790,000,000 nm — 179
1,780,000,000 nm — 178 — 70
1,770,000,000 nm — 177
1,760,000,000 nm — 176
1,750,000,000 nm — 175 — 69
1,740,000,000 nm — 174
1,730,000,000 nm — 173 — 68
1,720,000,000 nm — 172
1,710,000,000 nm — 171
1,700,000,000 nanometers (one billion, seven hundred million nanometers) — 170 cm — 67
1,690,000,000 nm — 169
1,680,000,000 nm — 168 — 66
1,670,000,000 nm — 167
1,660,000,000 nm — 166
1,650,000,000 nm — 165 — 65
1,640,000,000 nm — 164
1,630,000,000 nm — 163 — 64
1,620,000,000 nm — 162
1,610,000,000 nm — 161
1,600,000,000 nanometers (one billion, six hundred million nanometers) — 160 cm — 63
1,590,000,000 nm — 159
1,580,000,000 nm — 158 — 62
1,570,000,000 nm — 157
1,560,000,000 nm — 156
1,550,000,000 nm — 155 — 61
1,540,000,000 nm — 154
1,530,000,000 nm — 153
1,520,000,000 nm — 152 — 60 in 5 feet
1,510,000,000 nm — 151
1,500,000,000 nanometers (one billion, five hundred million nanometers) — 150 cm — 59
1,490,000,000 nm — 149
1,480,000,000 nm — 148
1,470,000,000 nm — 147 — 58
1,460,000,000 nm — 146
1,450,000,000 nm — 145 — 57
1,440,000,000 nm — 144
1,430,000,000 nm — 143
1,420,000,000 nm — 142 — 56
1,410,000,000 nm — 141
1,400,000,000 nanometers (one billion, four hundred million nanometers) — 140 cm — 55
1,390,000,000 nm — 139
1,380,000,000 nm — 138
1,370,000,000 nm — 137 — 54
1,360,000,000 nm — 136
1,350,000,000 nm — 135
1,340,000,000 nm — 134 — 53
1,330,000,000 nm — 133
1,320,000,000 nm — 132 — 52
1,310,000,000 nm — 131
1,300,000,000 nanometers (one billion, three hundred million nanometers) — 130 cm — 51
1,290,000,000 nm — 129
1,280,000,000 nm — 128
1,270,000,000 nm — 127 — 50
1,260,000,000 nm — 126
1,250,000,000 nm — 125 — 49
1,240,000,000 nm — 124
1,230,000,000 nm — 123
1,220,000,000 nm — 122 — 48 in 4 feet
1,210,000,000 nm — 121
1,200,000,000 nanometers (one billion, two hundred million nanometers) — 120 cm — 47
1,190,000,000 nm — 119
1,180,000,000 nm — 118
1,170,000,000 nm — 117 — 46
1,160,000,000 nm — 116
1,150,000,000 nm — 115
1,140,000,000 nm — 114 — 45
1,130,000,000 nm — 113
1,120,000,000 nm — 112 — 44
1,110,000,000 nm — 111
1,100,000,000 nanometers (one billion, one hundred million nanometers) — 110 cm
1,090,000,000 nm — 109 — 43
1,080,000,000 nm — 108
1,070,000,000 nm — 107
1,060,000,000 nm — 106 — 42
1,050,000,000 nm — 105
1,040,000,000 nm — 104 — 41
1,030,000,000 nm — 103
1,020,000,000 nm — 102 — 40
1,010,000,000 nm — 101
1,000,000,000 nanometers (one billion nanometers) — 100 cm
990,000,000 nm — 99 — 39
980,000,000 nm — 98
970,000,000 nm — 97
960,000,000 nm — 96 — 38
950,000,000 nm — 95
940,000,000 nm — 94 — 37
930,000,000 nm — 93
920,000,000 nm — 92
910,000,000 nm — 91 — 36 in 3 feet
900,000,000 nanometers (nine hundred million nanometers) — 90 cm
890,000,000 nm — 89 — 35
880,000,000 nm — 88
870,000,000 nm — 87
860,000,000 nm — 86 — 34
850,000,000 nm — 85
840,000,000 nm — 84
830,000,000 nm — 83 — 33
820,000,000 nm — 82
810,000,000 nm — 81 — 32
800,000,000 nanometers (eight hundred million nanometers) — 80 cm
790,000,000 nm — 79 — 31
780,000,000 nm — 78
770,000,000 nm — 77
760,000,000 nm — 76 — 30
750,000,000 nm — 75
740,000,000 nm — 74 — 29
730,000,000 nm — 73
720,000,000 nm — 72
710,000,000 nm — 71 — 28
700,000,000 nanometers (seven hundred million nanometers) — 70 cm
690,000,000 nm — 69 — 27
680,000,000 nm — 68
670,000,000 nm — 67
660,000,000 nm — 66 — 26
650,000,000 nm — 65
640,000,000 nm — 64
630,000,000 nm — 63 — 25
620,000,000 nm — 62
610,000,000 nm — 61 — 24 in 2 feet
600,000,000 nanometers (six hundred million nanometers) — 60 cm
590,000,000 nm — 59
580,000,000 nm — 58 — 23
570,000,000 nm — 57
560,000,000 nm — 56
550,000,000 nm — 55 — 22
540,000,000 nm — 54
530,000,000 nm — 53
520,000,000 nm — 52 — 21
510,000,000 nm — 51
500,000,000 nanometers (five hundred million nanometers) — 50 cm — 20
490,000,000 nm — 49
480,000,000 nm — 48 — 19
470,000,000 nm — 47
460,000,000 nm — 46
450,000,000 nm — 45 — 18
440,000,000 nm — 44
430,000,000 nm — 43
420,000,000 nm — 42 — 17
410,000,000 nm — 41
400,000,000 nanometers (four hundred million nanometers) — 40 cm — 16
390,000,000 nm — 39
380,000,000 nm — 38 — 15
370,000,000 nm — 37
360,000,000 nm — 36
350,000,000 nm — 35 — 14
340,000,000 nm — 34
330,000,000 nm — 33 — 13
320,000,000 nm — 32
310,000,000 nm — 31
300,000,000 nanometers (three hundred million nanometers) — 30 cm — 12 in 1 foot
290,000,000 nm — 29
280,000,000 nm — 28 — 11
270,000,000 nm — 27
260,000,000 nm — 26
250,000,000 nm — 25 — 10
240,000,000 nm — 24
230,000,000 nm — 23 — 9
220,000,000 nm — 22
210,000,000 nm — 21
200,000,000 nanometers (two hundred million nanometers) — 20 cm — 8
190,000,000 nm — 19
180,000,000 nm — 18 — 7
170,000,000 nm — 17
160,000,000 nm — 16
150,000,000 nm — 15 — 6
140,000,000 nm — 14
130,000,000 nm — 13
120,000,000 nm — 12 — 5
110,000,000 nm — 11
100,000,000 nanometers (one hundred million nanometers) — 10 cm — 4
90,000,000 nm — 9
80,000,000 nm — 8
70,000,000 nm — 7 — 3
60,000,000 nm — 6
50,000,000 nm — 5 — 2
40,000,000 nm — 4
30,000,000 nm — 3
20,000,000 nm — 2 — 1
10,000,000 nm — 1

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