

## Answer on Question #61619 – Math – Algebra

### Question

I'm trying to measure how many pieces of glitter are in 16 ounces of glitter. How do I go about doing that?

### Answer

1. Material of glitter: density of material  $\rho$  (chopped polyethylene terephthalate film ("standard" glitter); aluminum foil (aluminum glitter); the smallest glass (stained glass glitter); synthetic fibers coated with metal oxides (e.g., Glitter pigment), etc.

2. Size:

Glitter Size	Inches	Fractional (Inches)	Microns	Millimeters
Extra Large	.250"	1/4"	6250	6.25
Large	.125"	1/8"	3125	3.125
	.1"	1/10"	2540	2.54
Medium	.094"	47/500"	2385	2.385
	.083"	1/12"	2108	2.108
	.078"	39/500"	2000	2
	.063"	1/16"	1600	1.6
	.062"	31/500"	1550	1.55
Fine	.042"	1/24"	1067	1.067
	.040"	1/25"	1000	1
	.035"	7/200"	875	0.875
	.031"	1/32"	787	0.787
Very Fine	.025"	1/40"	625	0.625
	.016"	2/125"	400	0.4
Extra Fine	.015"	3/200"	375	0.375
	.012"	3/250"	300	0.3
	.01"	1/96"	254	0.254
Ultra Fine	.008"	1/125"	200	0.2
Micro Fine	.004"	1/250"	100	0.1
	.003"	3/1000"	75	0.075
	.002"- .003"	1/250"+	65-82	0.065- 0.082

3. Forms of pieces: beads, glitter-figures (sticks, flowers, stars, hearts, hexagons).

4. The volume of a piece multiplied by the density of the material will give the mass of a piece.

5. Divide 16 oz by the mass of a single piece in ounces and find the number of pieces.

Or

1. We take all pieces and find their mass.
2. Divide their mass by the number of single pieces in ounces and obtain mass of a piece.
3. Divide 16 oz by mass of a single piece in ounces and find the number of pieces.