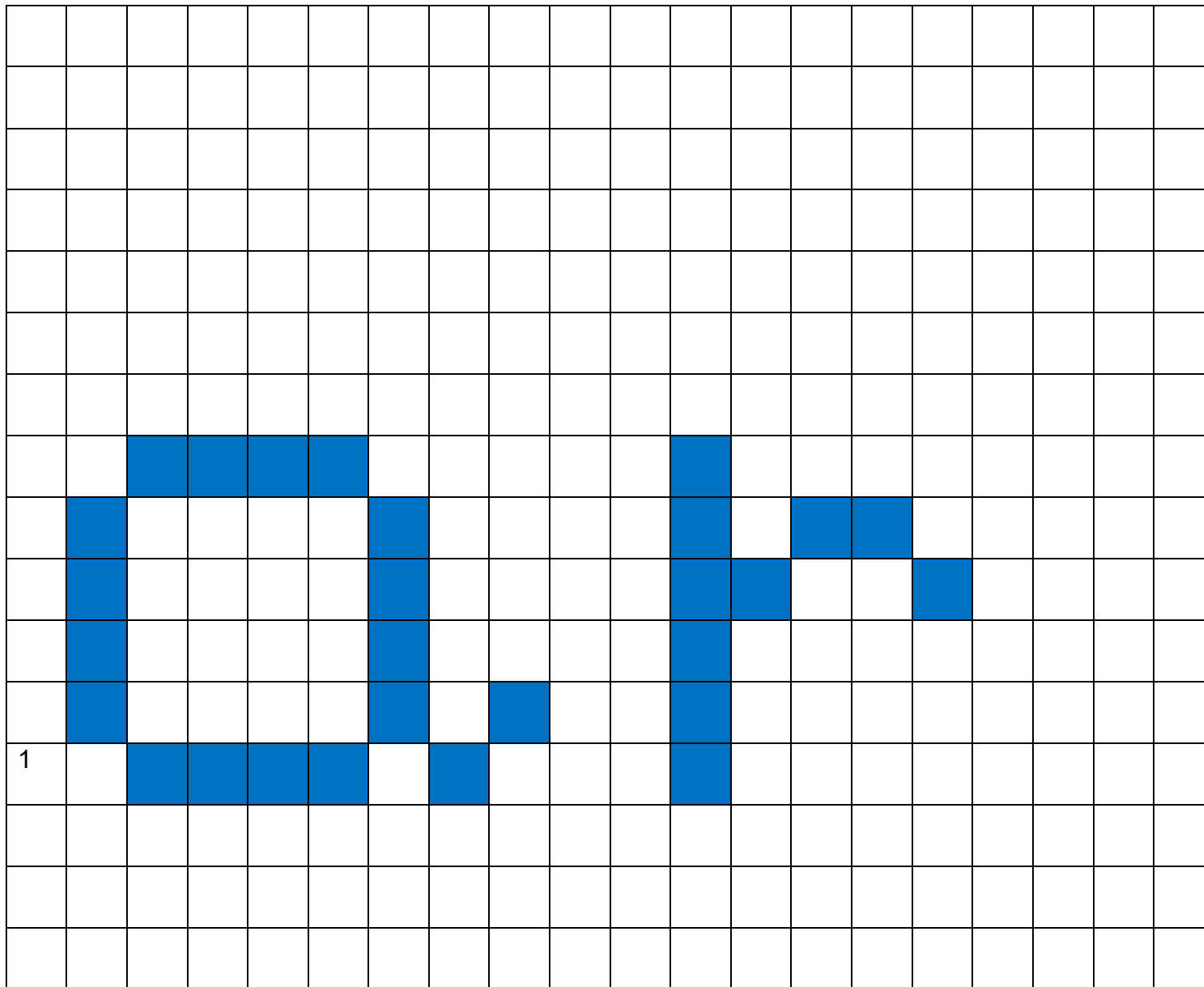
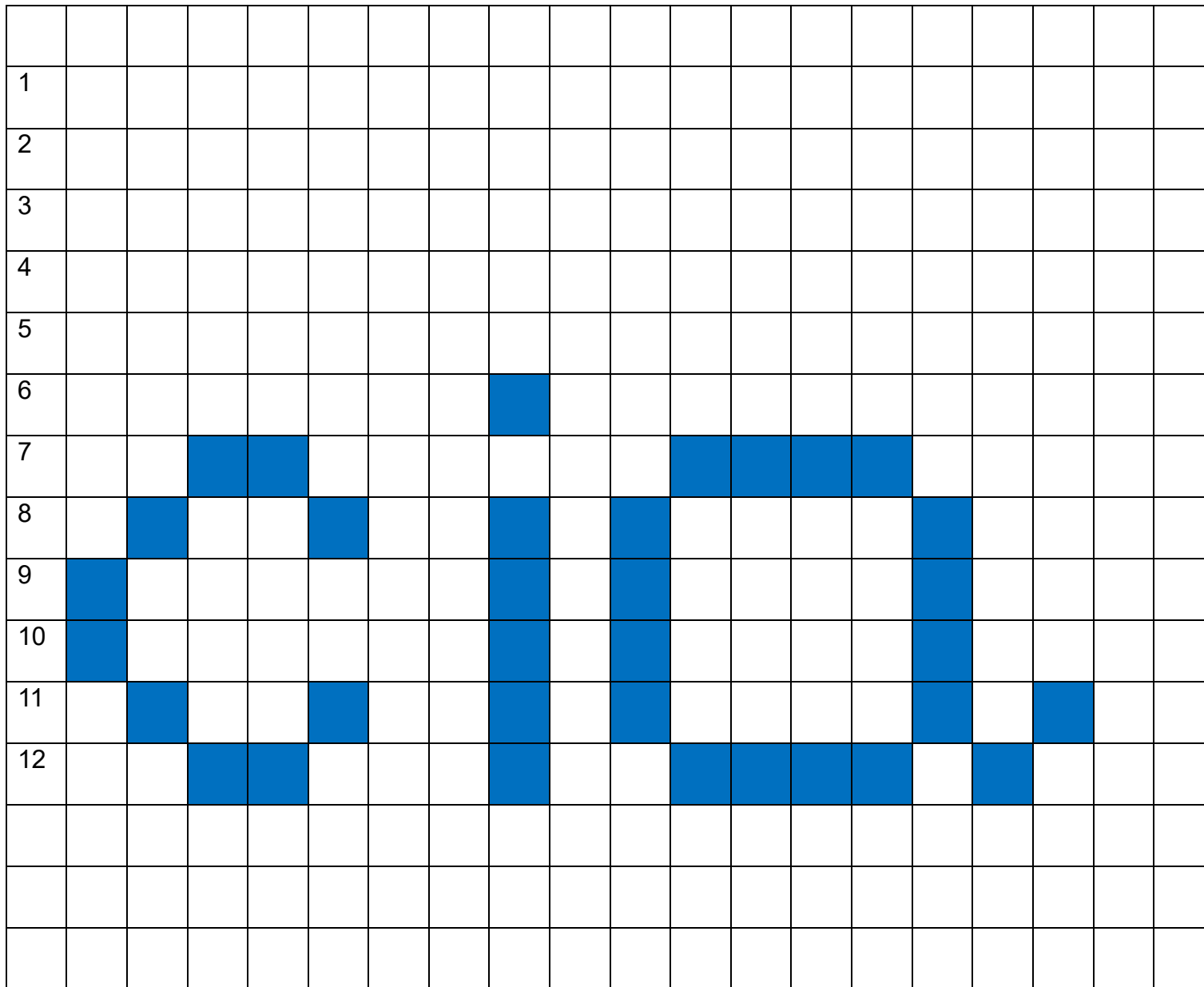


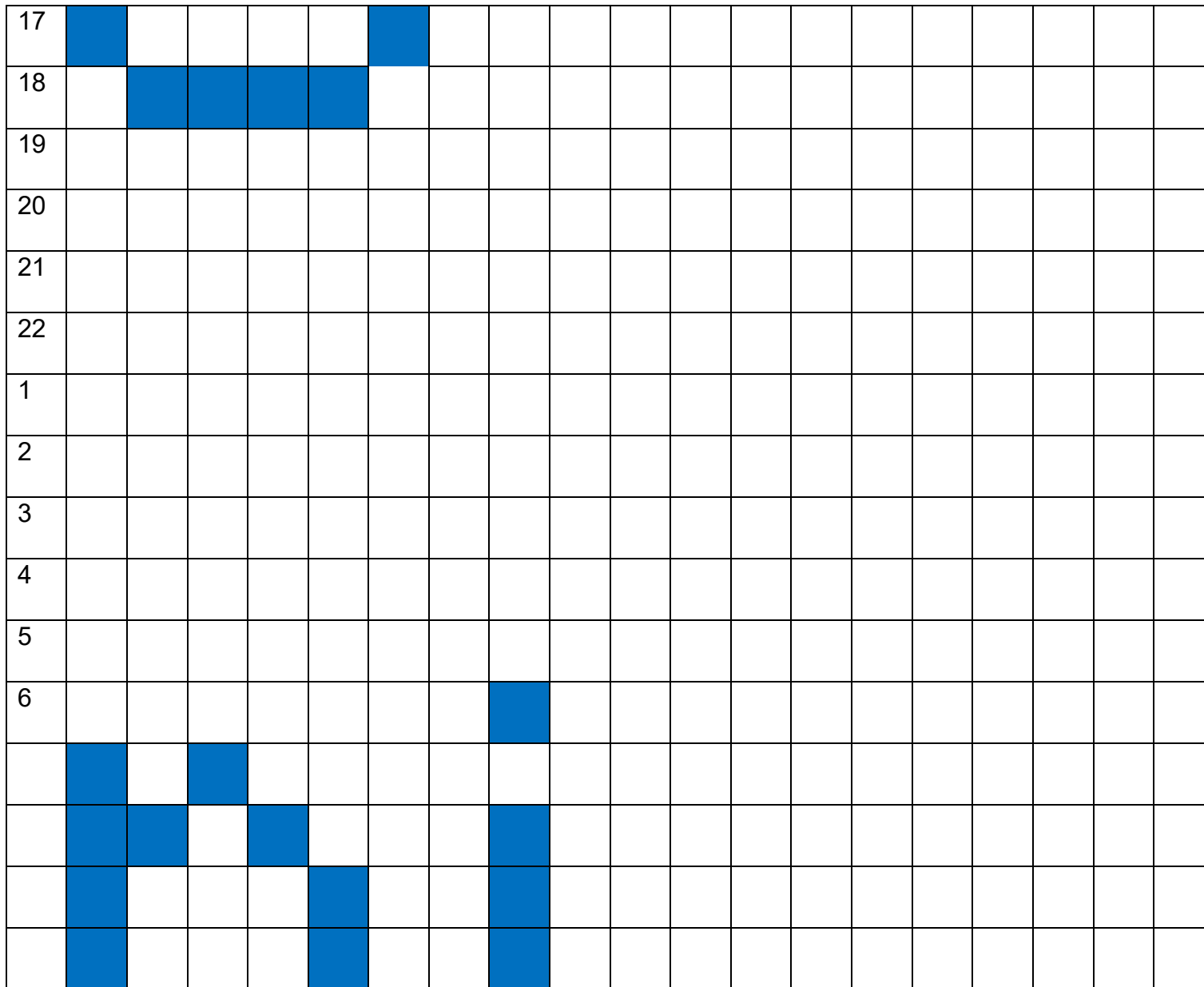
Creation of a font: Perimeter, Area, Volume & Mass**Instructions:**

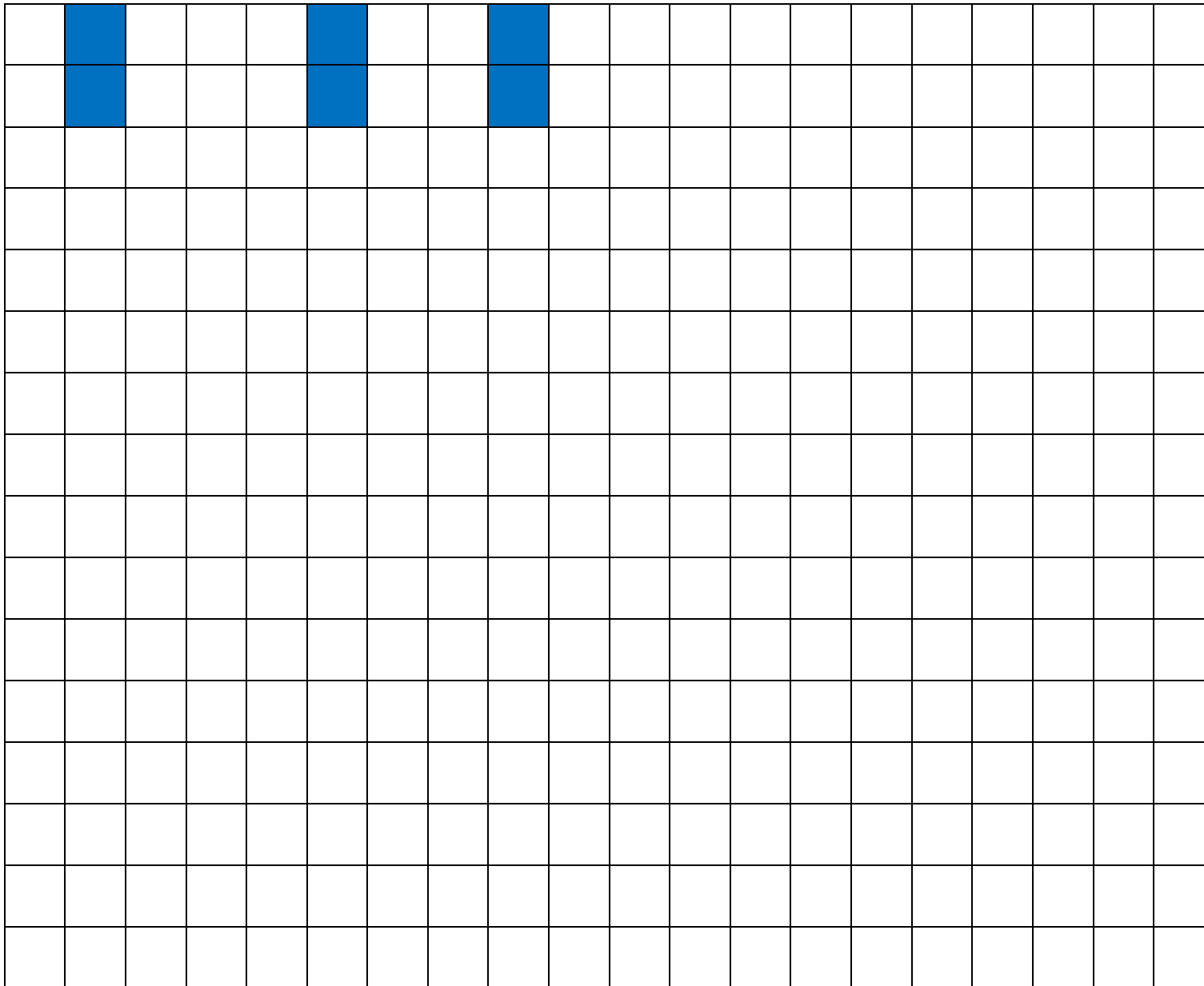
For this sheet, you must find the Perimeter, Area, Volume, and Mass (if you can (click Me if you are using Minecraft) of your item. The first step is you need to find the total perimeter then for each of the 4 to 10 letters. Next, you need to find the total area for each of the 4 to 10 letters. After that, you need to find the total volume for each of the 4 to 10 letters. The last step is to find the total mass of your word/font.

Word	Ciarciaglini
Medium	Crochet
Reason:	I chose my last name because it is long enough to do this project. I chose crocheting because I love to crochet.









Information

$l = 56 \text{ cm}$

$w = 15 \text{ cm}$

$h = 5 \text{ mm}$

Perimeter:

Total:

$$P = 2 * l + 2 * w$$

$$P = 2(56) + 2(15)$$

$$P = 112 \text{ cm} + 30 \text{ cm}$$

$$P = 142 \text{ cm}$$

8 cm = 11 st

10 cm = 13 rows

Letters:

Letter	C	I	A	R	C
Perimeter	Base & Top 2.90 cm 4 sts 0.72 cm Side 4.6 cm $2 * 2.90$ $= 5.80 \text{ cm}$ $4 * 0.72 =$ 2.88 cm $5.80 + 2.88 + 4.6$ $= 13.28 \text{ cm}$	Dot 0.72 cm Length 3.84 cm $0.72 + 3.84$ $= 4.56 \text{ cm}$	2 dots 0.72 cm 2 sides (top) 2.90 cm 2 sides (LR) 3.08 cm $2 * 2.90 +$ $2 * 0.72 +$ $2 * 3.08 =$ 13.40 cm	Straight 4.62 cm 2 dots 0.72 cm Top 1.45 cm $4.62 + 2 * 0.72$ $+ 1.45$ $= 7.51 \text{ cm}$	4 dots 0.72 cm Top and bottom 1.45 cm Side 1.54 cm $4 * 0.72$ $= 2.88 \text{ cm}$ $2 * 1.45$ $= 2.90 \text{ cm}$ $2.88 + 2.90 + 1.54$ $= 7.32 \text{ cm}$
Letter	l	a	G	L	i
Perimeter	Dot 0.72 cm Length 3.84 cm $0.72 + 3.84$ $= 4.56 \text{ cm}$	2 dots 0.72 cm 2 sides (top) 2.90 cm 2 sides (LR) 3.08 cm $2 * 2.90 +$ $2 * 0.72 +$ $2 * 3.08 =$ 13.40 cm	2 sides (top) 2.90 cm Side (L) 3.08 cm Tail 7.69 cm Dot 0.72 cm $2 * 2.90 + 3.08$ $+ 7.69 + 0.72$ $= 17.69 \text{ cm}$	Side 8.46 cm 3 dots 0.72 cm $3 * 0.72 + 8.46$ 10.62 cm	Dot 0.72 cm Length 3.84 cm $0.72 + 3.84$ $= 4.56 \text{ cm}$

Letter	N	i			
Perimeter	L 4.62 cm R 3.08 cm 3 dots 0.72 $3 * 0.72 = 2.16 \text{ cm}$ $4.62 + 2.16$ $= 6.78 \text{ cm}$	Dot 0.72 cm Length 3.84 cm $0.72 + 3.84$ $= 4.56 \text{ cm}$			

Area:

Total:

$l = 56 \text{ cm}$

$w = 15 \text{ cm}$

$$A = lw$$

$$A = 56(15) = 840 \text{ cm}^2$$

Letters:

Letter	C	I	A	R	C
Area	5 cm 9.9 cm $A = 5 * 9.9$ 49.50 cm^2	0.5 cm 5 cm $A = 5 * 0.5$ 2.5 cm^2	4.9 cm 6 cm $A = 4.9 * 6$ 29.4 cm^2	4 cm 4 cm $A = 4 * 4$ 16 cm^2	3.5 cm 4.5 cm $A = 3.5 * 4.5$ 15.75 cm^2
Letter	I	A	G	L	I
Area	0.5 cm 5 cm $A = 5 * 0.5$ 2.5 cm^2	4.9 cm 6 cm $A = 4.9 * 6$ 29.4 cm^2	4 cm 9.5 cm $A = 4 * 9.5$ 38 cm^2	7.5 cm 3 cm $A = 7.5 * 3$ 22.5 cm^2	0.5 cm 5 cm $A = 5 * 0.5$ 2.5 cm^2

Letter	N	I			
Area	4 cm 4.5 cm $A = 4 * 4.5$ 18 cm^2	0.5 cm 5 cm $A = 5 * 0.5$ 2.5 cm^2			

Volume:

Total:

$$h = 5 \text{ mm}$$

$$A = 840 \text{ cm} = 84,000 \text{ mm}$$

$$V = hA$$

$$V = 5(84,000)$$

$$V = 420,000 \text{ mm}^3$$

Letters:

Letter	C	I	A	R	C
Volume	$h = 5mm$ $= 0.05 cm$ A $= 49.50cm^2$ V $= 0.05(49.50)$ $= 2.475 cm^3$	$h = 5mm$ $= 0.05 cm$ $A = 2.5 cm^2$ $V = 0.05(2.5)$ $= 0.125 cm^3$	$h = 5mm$ $= 0.05 cm$ A $= 29.40 cm^2$ V $= 0.05(29.40)$ $= 1.47 cm^3$	$h = 5mm$ $= 0.05 cm$ $A = 16 cm^2$ $V = 0.05(16)$ $= 0.8 cm^3$	$h = 5mm$ $= 0.05 cm$ A $= 15.75 cm^2$ V $= 0.05(15.75)$ $= 0.79 cm^3$
Letter	I	A	G	L	I
Volume	$h = 5mm$ $= 0.05 cm$ $A = 2.5 cm^2$ $V = 0.05(2.5)$ $= 0.125 cm^3$	$h = 5mm$ $= 0.05 cm$ A $= 29.40 cm^2$ V $= 0.05(29.40)$ $= 1.47 cm^3$	$h = 5mm$ $= 0.05 cm$ $A = 38 cm^2$ $V = 0.05(38)$ $= 1.9 cm^3$	$h = 5mm$ $= 0.05 cm$ A $= 22.50 cm^2$ V $= 0.05(22.50)$ $= 1.13 cm^3$	$h = 5mm$ $= 0.05 cm$ $A = 2.5 cm^2$ $V = 0.05(2.5)$ $= 0.125 cm^3$
Letter	N	I			

Volume	$h = 5mm$ $= 0.05cm$ $A = 18cm^2$ $V = 0.05(18)$ $= 0.90 cm^3$	$h = 5mm$ $= 0.05 cm$ $A = 2.5 cm^2$ $V = 0.05(2.5)$ $= 0.125 cm^3$			
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Mass:

Mass of the medium yarn is: $\frac{1,000 g^2}{334,450,944 cm^2}$

$$\frac{840 cm^2}{x g} = \frac{334,450,944 cm^2}{1,000g^2}$$

$$840,000 = 334,450,944x$$

$$m = 0.0025 g = 2.5 mg$$