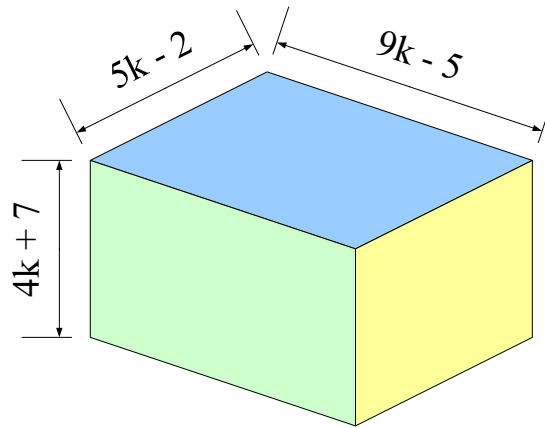


1	$(-4a+13)(15a+8)$	16	$(5a+16)(11a+15)(9a+20)$
2	$(-2b+20)(4b+5)$	17	$(13b+17)(10b+7)(4b+11)$
3	$(12c+7)(-5c+8)$	18	$(8c+18)(11c+20)(8c+11)$
4	$(-7d+15)(10d+15)$	19	$(3d+20)(10d+0)(10d+14)$
5	$(7e+10)(-8e+0)$	20	$(8e+9)(9e+8)(10e+14)$
6	$(12f+7)(2f+3)$	21	$(5f+6)(2f+3)(15f+0)$
7	$(-7g+16)(-3g+16)$	22	$(8g+9)(8g+2)(3g+20)$
8	$(7h+7)(8h+9)$	23	$(12h+0)(13h+16)(14h+14)$
9	$(-4i+7)(2i+17)$	24	$(15j+3)(12j+9)(5j+9)$
10	$(-4j+3)(8j+3)$	25	$(11k+11)(6k+17)(6k+19)$
11	$(1k+8)(-4k+5)$	26	$(8m+0)(3m+8)(5m+3)$
12	$(-5m+6)(13m+13)$	27	$(10n+12)(5n+19)(10n+15)$
13	$(-8n+7)(-6n+10)$	28	$(12p+9)(12p+3)(14p+17)$
14	$(11p+7)(13p+15)$	29	$(6q+3)(2q+3)(3q+2)$
15	$(2q+7)(11q+0)$	30	$(2r+13)(9r+8)(8r+14)$

## Application



A For the cuboid above, find expressions for:

- i) the total length of the edges;
- ii) the surface area;
- iii) the volume of the cuboid.

B If  $k=9$  and the lengths are given in cm. The cuboid weighs 2714.924 kg. Calculate the density of the cuboid. (Hint: Weight = density  $\times$  Volume)

C Below is listed the density of several metals. Of which of the metals listed below is the cuboid made?

Material	Density
Gold	$19.32 \text{ gcm}^{-3}$
Platinum	$21.45 \text{ gcm}^{-3}$
Rhenium	$21.04 \text{ gcm}^{-3}$
Silver	$10.5 \text{ gcm}^{-3}$
Steel	$7.8 \text{ gcm}^{-3}$
Tungsten	$19.35 \text{ gcm}^{-3}$

D If the cuboid had been made from Steel and the value of  $k=6$ :

- i) How much lighter would the cuboid have weighed?
- ii) Give the weight of the steel cuboid as a percentage of the original cuboid.