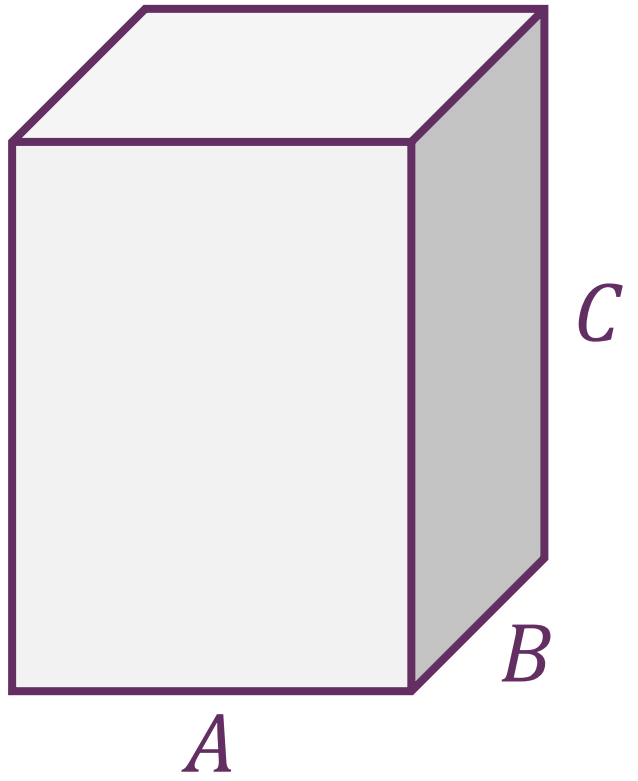
Volume and Surface Area of a Cuboid

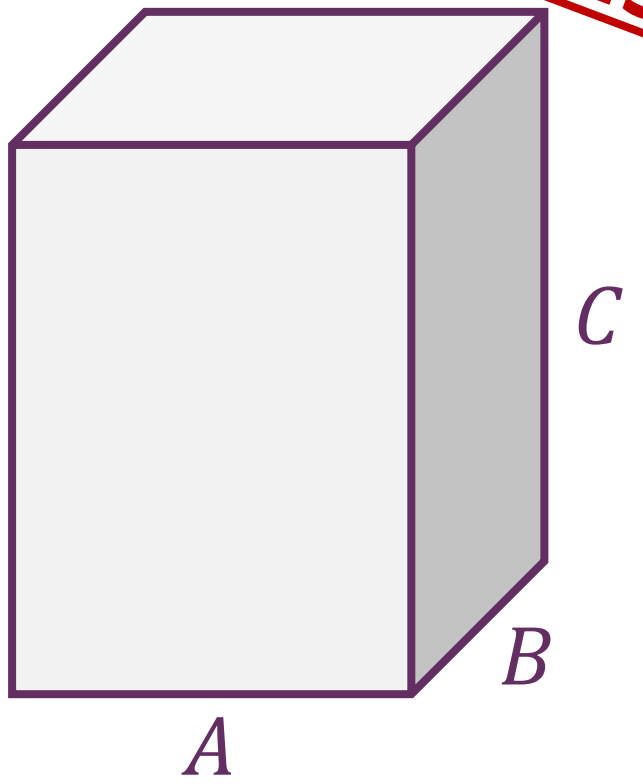
	A	B	C	Volume	Surface Area
a.	1 cm	2 cm	10 cm		
b.	1 cm	2 cm		10 cm^3	
c.	1 cm	2 cm			10 cm^2
d.	2 cm	5 cm	90 cm		
e.	2 cm	5 cm		90 cm^3	
f.	2 cm	5 cm			90 cm^2
g.	4 cm			400 cm^3	400 cm^2
h.	4 cm			288 cm^3	288 cm^2
i.	5 cm			250 cm^3	250 cm^2



Volume and Surface Area of a Cuboid

Solutions

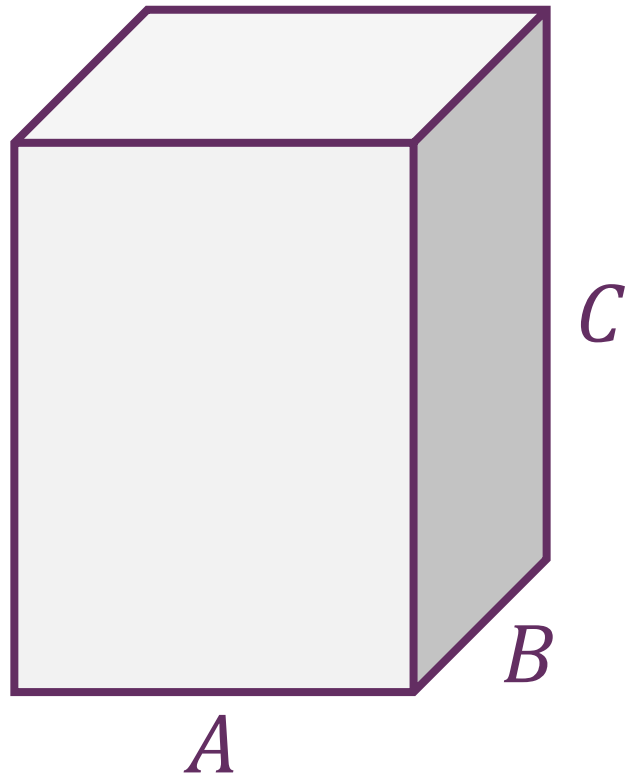
	A	B	C	Volume	Surface Area
a.	1 cm	2 cm	10 cm	20 cm^3	64 cm^2
b.	1 cm	2 cm	5 cm	10 cm^3	34 cm^2
c.	1 cm	2 cm	1 cm	2 cm^3	10 cm^2
d.	2 cm	5 cm	90 cm	900 cm^3	1280 cm^2
e.	2 cm	5 cm	9 cm	90 cm^3	146 cm^2
f.	2 cm	5 cm	5 cm	50 cm^3	90 cm^2
g.	4 cm	5 cm	20 cm	400 cm^3	400 cm^2
h.	4 cm	6 cm	12 cm	288 cm^3	288 cm^2
i.	5 cm	5 cm	10 cm	250 cm^3	250 cm^2



Volume and Surface Area of a Cuboid with...

Fractions

	A	B	C	Volume	Surface Area
a.	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$		
b.	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$		
c.	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{2}{5}$		
d.	$\frac{1}{2}$	$\frac{1}{5}$		$\frac{3}{70}$	
e.	$\frac{1}{2}$	$\frac{1}{6}$			1
f.	$\frac{1}{2}$	$\frac{1}{7}$	3		
g.	$\frac{1}{2}$	$\frac{1}{8}$	$1\frac{1}{2}$		
h.	$\frac{1}{2}$	$\frac{1}{9}$		1	

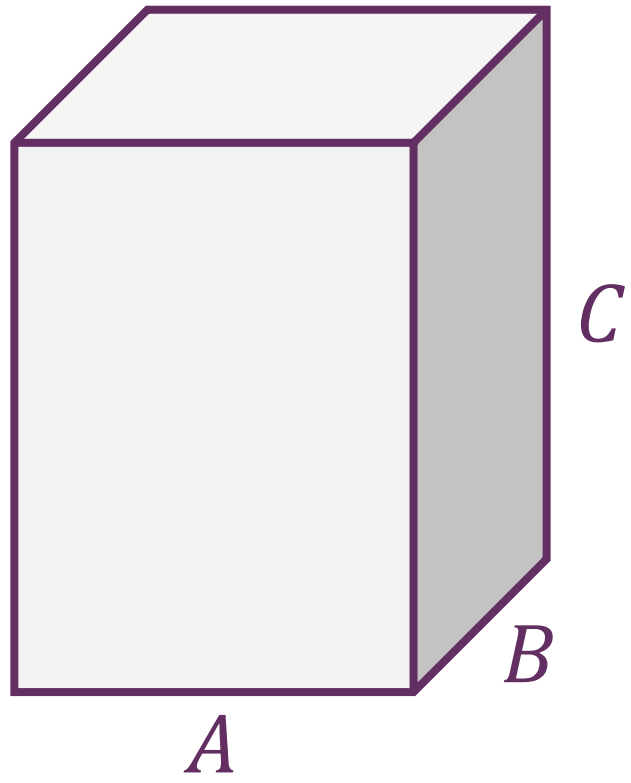


Volume and Surface Area of a Cuboid with...

Solutions

Fractions

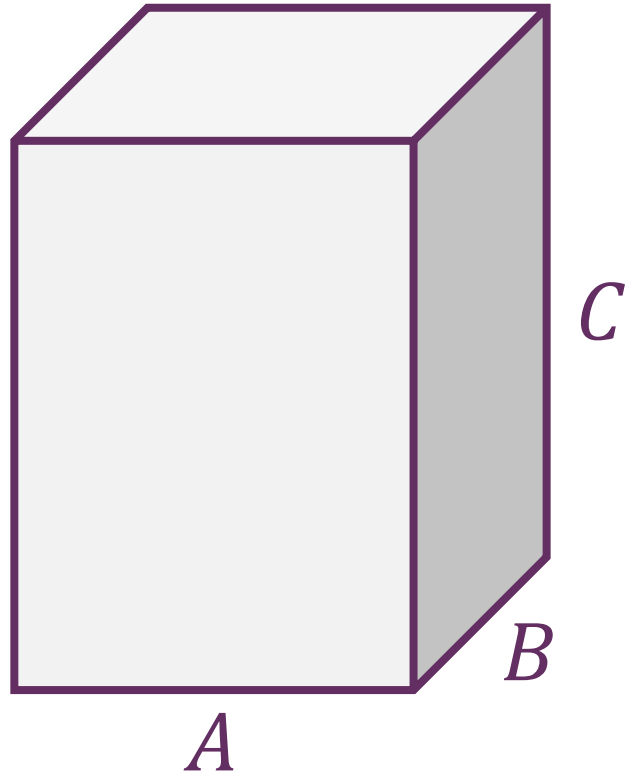
	A	B	C	Volume	Surface Area
a.	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{16}$	1
b.	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$	$\frac{1}{24}$	$\frac{3}{4}$
c.	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{2}{5}$	$\frac{1}{20}$	$\frac{17}{20}$
d.	$\frac{1}{2}$	$\frac{1}{5}$	$\frac{3}{7}$	$\frac{3}{70}$	$\frac{4}{5}$
e.	$\frac{1}{2}$	$\frac{1}{6}$	$\frac{5}{8}$	$\frac{5}{96}$	1
f.	$\frac{1}{2}$	$\frac{1}{7}$	3	$\frac{3}{14}$	4
g.	$\frac{1}{2}$	$\frac{1}{8}$	$1\frac{1}{2}$	$\frac{3}{32}$	2
h.	$\frac{1}{2}$	$\frac{1}{9}$	18	1	$\frac{199}{9}$



Volume and Surface Area of a Cuboid with...

Decimals

	A	B	C	Volume	Surface Area
a.	0.25 cm	0.4 cm	10 cm		
b.	0.25 cm	0.6 cm	1 cm		
c.	0.5 cm	0.2 cm	2 cm		
d.	1.6 cm	0.5 cm		$4\ cm^3$	
e.	1.5 cm	1 cm			$5\ cm^2$
f.	0.75 cm	0.8 cm		$6\ cm^3$	
g.	1.4 cm	2.5 cm		$7\ cm^3$	
h.	0.5 cm	2 cm			$8\ cm^2$
i.	1.2 cm	1.5 cm			$9\ cm^2$

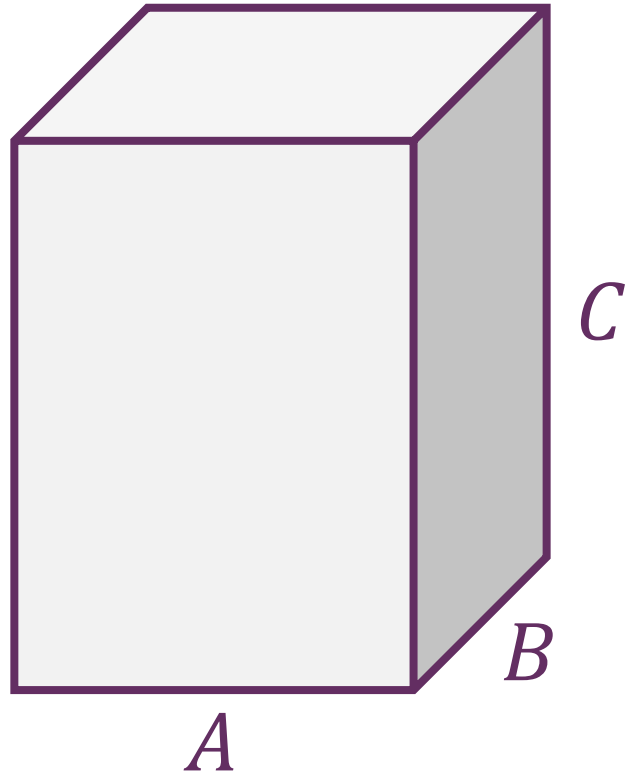


Volume and Surface Area of a Cuboid with...

Solutions

Decimals

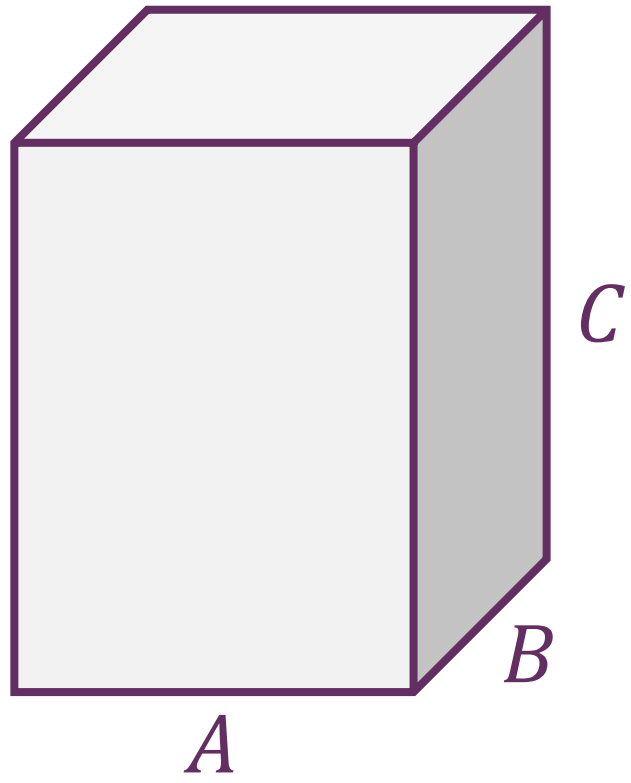
	A	B	C	Volume	Surface Area
a.	0.25 cm	0.4 cm	10 cm	1 cm^3	13.2 cm^2
b.	0.25 cm	0.6 cm	1 cm	0.15 cm^3	2 cm^2
c.	0.5 cm	0.2 cm	2 cm	0.2 cm^3	3 cm^2
d.	1.6 cm	0.5 cm	5 cm	4 cm^3	22.6 cm^2
e.	1.5 cm	1 cm	0.4 cm	0.6 cm^3	5 cm^2
f.	0.75 cm	0.8 cm	10 cm	6 cm^3	32.2 cm^2
g.	1.4 cm	2.5 cm	2 cm	7 cm^3	22.6 cm^2
h.	0.5 cm	2 cm	1.2 cm	1.2 cm^3	8 cm^2
i.	1.2 cm	1.5 cm	1 cm	1.8 cm^3	9 cm^2



Volume and Surface Area of a Cuboid with…

Laws of Indices

	A	B	C	Volume	Surface Area
a.	x	x	x		
b.	x^2	x^2	x^2		
c.	x	x	x^2		
d.	x	x^2	x^2		
e.	6^{11}	6^{11}	6^{11}		
f.	2^5	2^6	2^6		
g.	4^{32}	4^{34}	4^{34}		
h.	10^{10}	10^{11}	10^{12}		

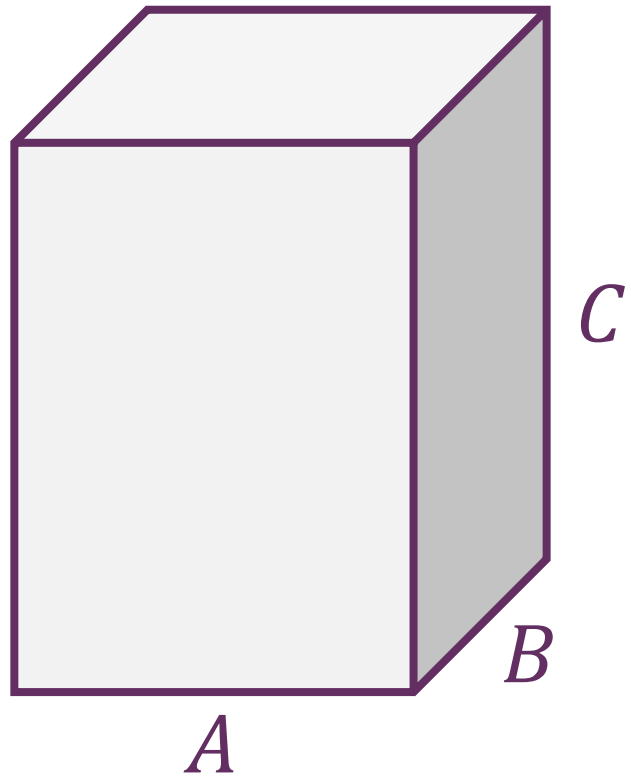


Volume and Surface Area of a Cuboid with...

Solutions

Laws of Indices

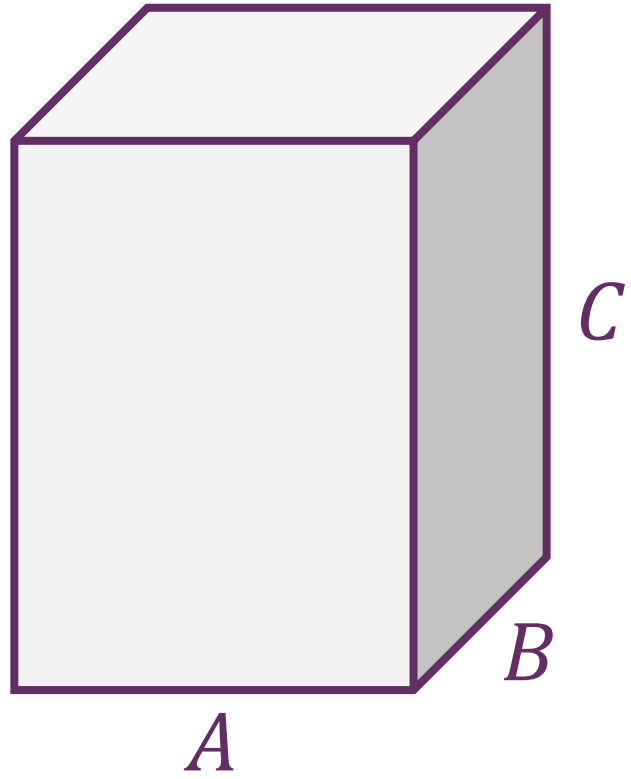
	A	B	C	Volume	Surface Area
a.	x	x	x	x^3	$6x^2$
b.	x^2	x^2	x^2	x^6	$6x^4$
c.	x	x	x^2	x^4	$2x^2 + 4x^3$
d.	x	x^2	x^2	x^5	$2x^4 + 4x^3$
e.	6^{11}	6^{11}	6^{11}	6^{33}	6^{23}
f.	2^5	2^6	2^6	2^{17}	2^{14}
g.	4^{32}	4^{34}	4^{34}	4^{100}	9×4^{67}
h.	10^{10}	10^{11}	10^{12}	10^{33}	2.22×10^{23}



Volume and Surface Area of a Cuboid with...

Algebra

	A	B	C	Volume	Surface Area
a.	x	2	2		
b.	x	x	2		
c.		x	2	$4x^2$	
d.	$2x$	$2x$	2		
e.	$2x$		2	$8x$	
f.	$2+x$	2	2	$8+4x$	
g.				$8-4x$	$24-8x$
h.	$2-x$	$2+x$	2		
i.	$2-x$	$2+x$	x^2		

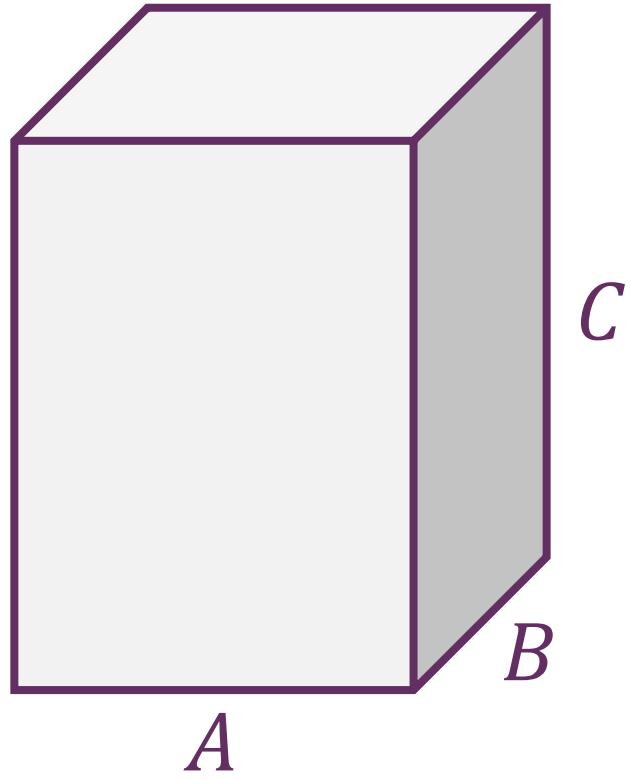


Volume and Surface Area of a Cuboid with...

Solutions

Algebra

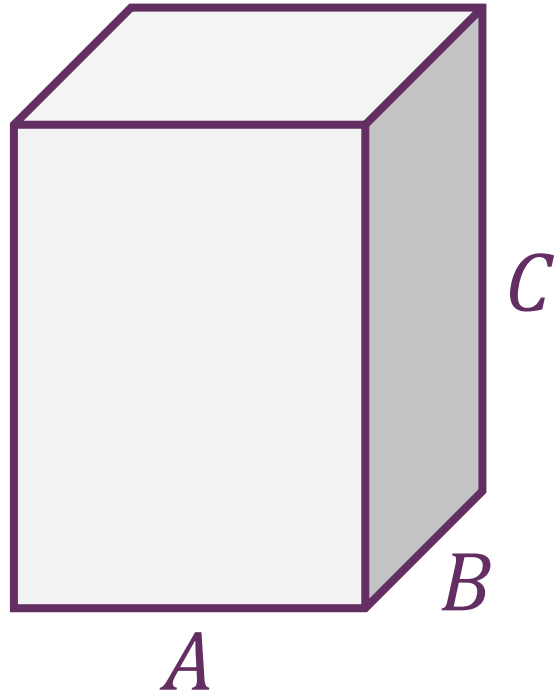
	A	B	C	Volume	Surface Area
a.	x	2	2	$\mathbf{4x}$	$\mathbf{8x + 8}$
b.	x	x	2	$\mathbf{2x^2}$	$\mathbf{2x^2 + 4x}$
c.	$\mathbf{2x}$	x	2	$4x^2$	$\mathbf{4x^2 + 12x}$
d.	$2x$	$2x$	2	$\mathbf{8x^2}$	$\mathbf{8x^2 + 16x}$
e.	$2x$	$\mathbf{2}$	2	$8x$	$\mathbf{16x + 8}$
f.	$2 + x$	2	2	$8 + 4x$	$\mathbf{24 + 8x}$
g.	$\mathbf{2 - x}$	$\mathbf{2}$	$\mathbf{2}$	$8 - 4x$	$24 - 8x$
h.	$2 - x$	$2 + x$	2	$\mathbf{8 - 2x^2}$	$\mathbf{24 - 2x^2}$
i.	$2 - x$	$2 + x$	x^2	$\mathbf{4x^2 - x^4}$	$\mathbf{8 - x^2}$



Volume and Surface Area of a Cuboid with...

Expanding Brackets

	A	B	C	Volume	Surface Area
a.	$x+3$	x	3		
b.	$x+3$	$x+3$	3		
c.	$x+3$	$x+3$	x		
d.	$x+3$	$x-3$	x		
e.	$x+3$	$x-3$		$3x^3-27x$	
f.	$x+3$	$x+3$	$x+3$		
g.	$x+1$	$x+2$	$x+3$		
h.				x^3-x	

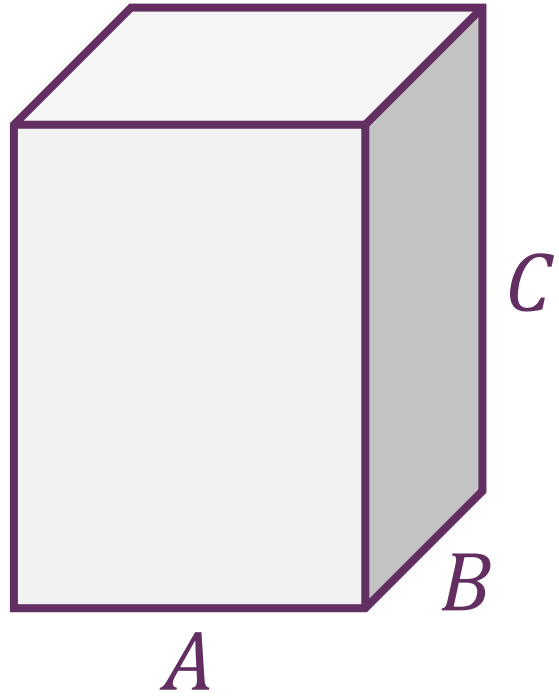


Volume and Surface Area of a Cuboid with...

Solutions

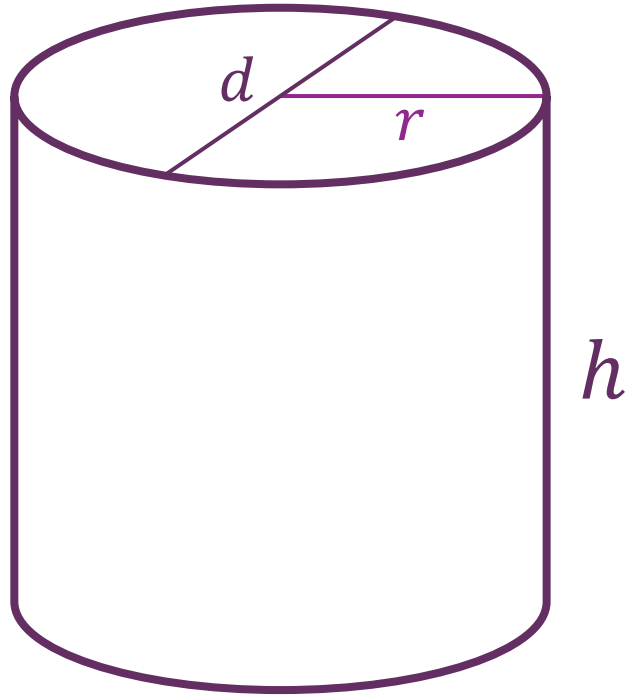
Expanding Brackets

	A	B	C	Volume	Surface Area
a.	$x+3$	x	3	$\mathbf{3x^2+9x}$	$\mathbf{2x^2+18x+18}$
b.	$x+3$	$x+3$	3	$\mathbf{3x^2+18x+27}$	$\mathbf{2x^2+24x+54}$
c.	$x+3$	$x+3$	x	$\mathbf{x^3+6x^2+9x}$	$\mathbf{6x^2+24x+18}$
d.	$x+3$	$x-3$	x	$\mathbf{x^3-9x}$	$\mathbf{6x^2-18}$
e.	$x+3$	$x-3$	$\mathbf{3x}$	$3x^3-27x$	$\mathbf{14x^2-18}$
f.	$x+3$	$x+3$	$x+3$	$\mathbf{x^3+9x^2+27x+27}$	$\mathbf{6x^2+36x+54}$
g.	$x+1$	$x+2$	$x+3$	$\mathbf{x^3+6x^2+11x+6}$	$\mathbf{6x^2+24x+22}$
h.	$\mathbf{x-1}$	$\mathbf{x}$	$\mathbf{x+1}$	x^3-x	$\mathbf{6x^2-2}$



Volume and Surface Area of a Cylinder

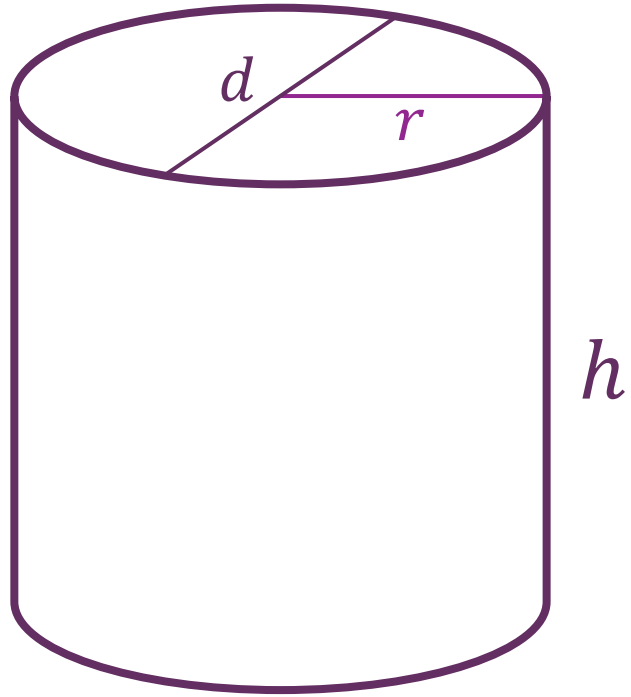
	r	d	h	Volume	Surface Area
a.	2		10		
b.	2		7		
c.		6	3		
d.			5	45π	
e.	4			32π	
f.			23	23π	
g.	1				36π
h.		12		1188π	
i.			45	1620π	
j.			0.5		36π



Volume and Surface Area of a Cylinder

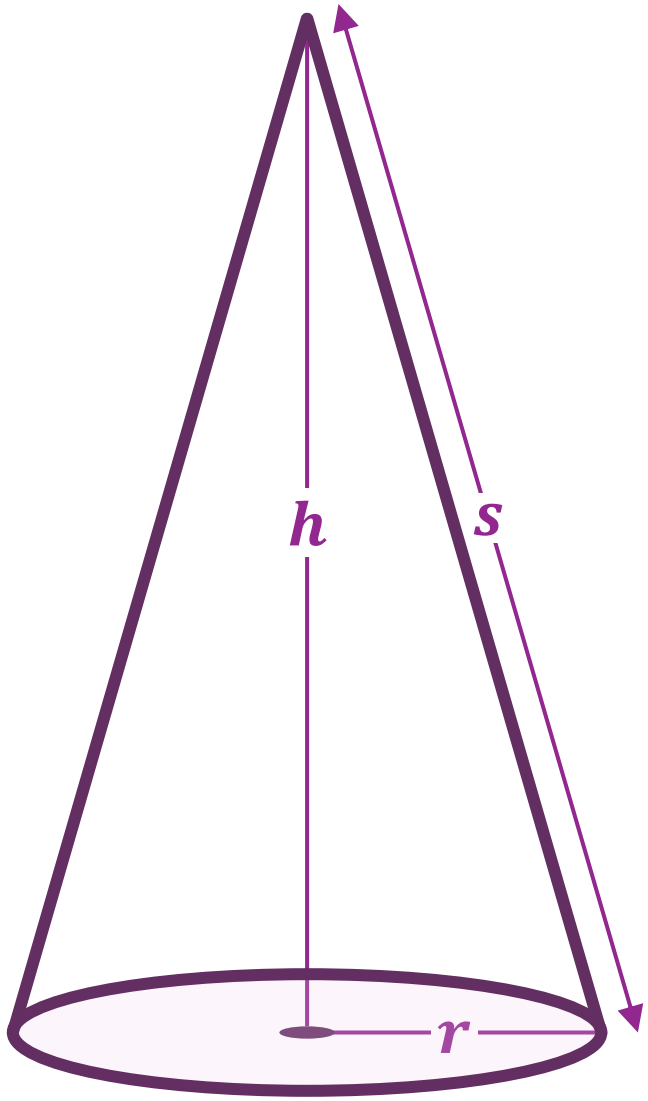
Solutions

	r	d	h	Volume	Surface Area
a.	2	4	10	40π	48π
b.	2	4	7	28π	36π
c.	3	6	3	27π	36π
d.	3	6	5	45π	48π
e.	4	8	2	32π	48π
f.	1	2	23	23π	48π
g.	1	2	17	17π	36π
h.	6	12	33	1188π	36π
i.	6	12	45	1620π	48π
j.	4	8	0.5	8π	36π

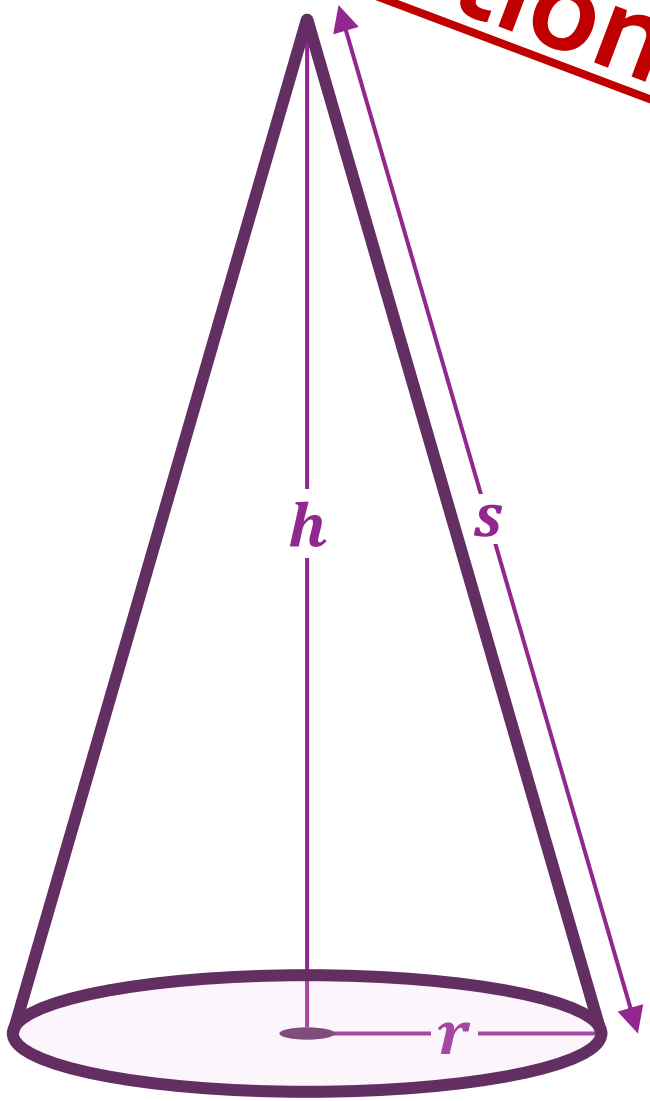


Volume and Surface Area of a Cone

	r	h	s	Volume	Surface Area
a.	3	4			
b.	4	3			
c.	8		10		
d.		15	17		
e.	7	24			
f.	15			600π	
g.		20		1500π	
h.			25		900π
i.	15				810π
j.				2800π	980π



Volume and Surface Area of a Cone

Solutions

	r	h	s	Volume	Surface Area
a.	3	4	5	12π	24π
b.	4	3	5	16π	36π
c.	8	6	10	128π	144π
d.	8	15	17	320π	200π
e.	7	24	25	392π	224π
f.	15	8	17	600π	480π
g.	15	20	25	1500π	600π
h.	20	15	25	2000π	900π
i.	15	36	39	2700π	810π
j.	20	21	29	2800π	980π