

## PROCEDIMIENTOS ALTERNATIVOS PARA LAS OPERACIONES BÁSICAS

### SUMA CON FORMA AMPLIADA

$$\begin{array}{r} 24 \\ + 32 \\ \hline \end{array} \Rightarrow \begin{array}{r} 20+4 \\ + 30+2 \\ \hline 50+6 \Rightarrow 56 \end{array}$$

$$\begin{array}{r} 324 \\ + 451 \\ \hline \end{array} \Rightarrow \begin{array}{r} 300+20+4 \\ + 400+50+1 \\ \hline 700+70+5 \Rightarrow 775 \end{array}$$

$$\begin{array}{r} 48 \\ + 36 \\ \hline \end{array} \Rightarrow \begin{array}{r} 10 \\ 40+8 \\ + 30+6 \\ \hline 80+4 \end{array} \xrightarrow{14 \rightarrow 10+4} \begin{array}{r} 84 \end{array}$$

$$\begin{array}{r} 379 \\ + 218 \\ \hline \end{array} \Rightarrow \begin{array}{r} 10 \\ 300+70+9 \\ + 200+10+8 \\ \hline 500+90+7 \end{array} \xrightarrow{17 \rightarrow 10+7} \begin{array}{r} 597 \end{array}$$

### RESTA CON FORMA AMPLIADA

$$\begin{array}{r} 58 \\ - 26 \\ \hline \end{array} \Rightarrow \begin{array}{r} 50+8 \\ - 20+6 \\ \hline 30+2 \Rightarrow 32 \end{array}$$

$$\begin{array}{r} 476 \\ - 145 \\ \hline \end{array} \Rightarrow \begin{array}{r} 400+70+6 \\ - 100+40+5 \\ \hline 300+30+1 \Rightarrow 331 \end{array}$$

$$\begin{array}{r} 61 \\ - 47 \\ \hline \end{array} \Rightarrow \begin{array}{r} 50 \ 11 \\ 60+1 \\ - 40+7 \\ \hline 10+4 \end{array} \Rightarrow 14$$

$$\begin{array}{r} 642 \\ - 319 \\ \hline \end{array} \Rightarrow \begin{array}{r} 30 \ 12 \\ 600+40+2 \\ - 300+10+9 \\ \hline 300+20+3 \end{array} \Rightarrow 323$$

### MULTIPLICACIÓN CON FORMA AMPLIADA

$$\begin{array}{r} 24 \\ \times 5 \\ \hline \end{array} \Rightarrow \begin{array}{r} 20+4 \\ \times 5 \\ \hline 20 \quad (5 \times 4) \\ 100 \quad (5 \times 20) \\ \hline 120 \end{array}$$

$$\begin{array}{r} 356 \\ \times 14 \\ \hline \end{array} \Rightarrow \begin{array}{r} 300+50+6 \\ \times 10+4 \\ \hline 24 \quad (4 \times 6) \\ 200 \quad (4 \times 50) \\ 1.200 \quad (4 \times 300) \\ 60 \quad (10 \times 6) \\ 500 \quad (10 \times 50) \\ 3.000 \quad (10 \times 300) \\ \hline 4.984 \end{array}$$

$$\begin{array}{r} 15 \times 12 = \\ 15 \times 10 = 150 \\ 15 \times 2 = + 30 \\ \hline 180 \end{array}$$

### DIVISIÓN CON RESTA REPETIDA

$$20 \div 5 = 4$$

Cuatro veces restó 5 de 20

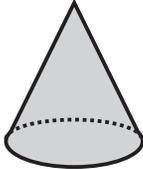
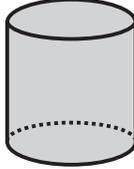
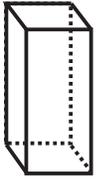
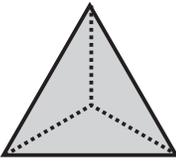
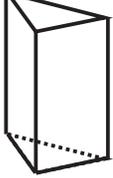
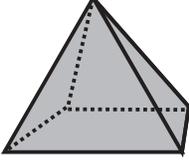
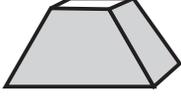
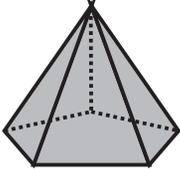
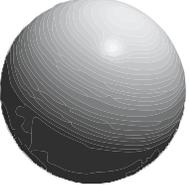
$$\begin{array}{r} 20 - 5 = 15 \\ 15 - 5 = 10 \\ 10 - 5 = 5 \\ 5 - 5 = 0 \end{array}$$

### DIVISIÓN CON MULTIPLICACIÓN ABREVIADA

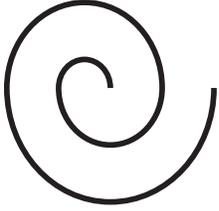
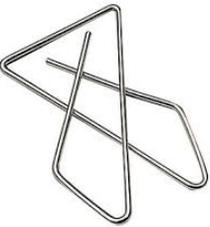
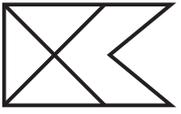
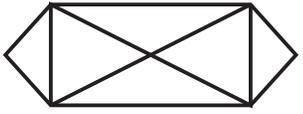
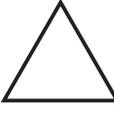
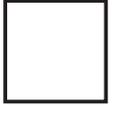
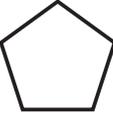
$$\begin{array}{r} 480 \overline{) 12} \\ 12 \times 10 = - 120 \\ \hline 360 \\ 12 \times 10 = - 120 \\ \hline 240 \\ 12 \times 10 = - 120 \\ \hline 120 \\ 12 \times 10 = - 120 \\ \hline 000 \end{array}$$

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# Tres dimensiones 3-D (Ancho - Largo - Alto) Objetos reales/sólidos geométricos

Poliedros (Todas las caras planas)		Mixtos (Superficie curva y plana)	Cuerpos redondos ( Toda la superficie curva)
<b>Prismas</b>	<b>Pirámides</b>	<b>Cono</b>	
<b>Caras laterales: cuadriláteros</b>	<b>Caras laterales: triángulos</b>		
 Prisma triangular	 Pirámide triangular	<b>Cortados</b>	
 Prisma cuadrado	 Pirámide cuadrada	 Cono cortado	 Pirámide cortada
 Cubo o hexáedro	 Pirámide pentagonal		

# Dos dimensiones 2-D (Ancho - Largo) Superficies y caras planas

Figuras abiertas	Figuras cerradas	
   	<b>Figuras complejas</b>	<b>Polígonos</b>
	1) Lados rectos; 2) Figura cerrada 3) En cada vértice <u>tres</u> o más lados	1) Lados rectos; 2) Figura cerrada 3) En cada vértice <u>solo</u> dos lados
	    	 Triángulo  Cuadrado  Pentágono  Hexágono
		<b>Clases de ángulos</b>
		 Recto  Obtuso  Agudo  Llano