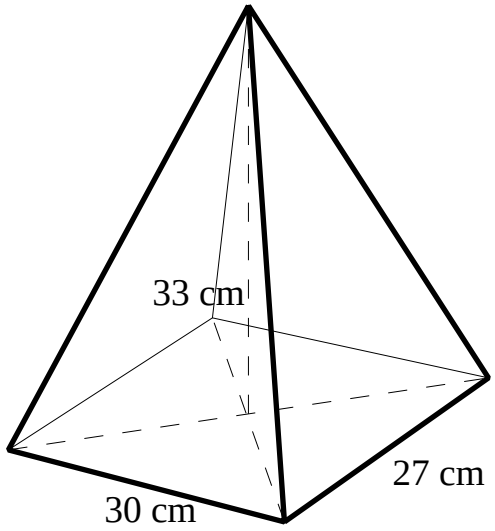
2.5 Homework

Do NOT use a Calculator



The Volume of a pyramid is given by the formula,

$$V = \frac{1}{3} \times \textit{Area of the Base} \times \textit{Perpendicular Height}$$

For the above pyramid this becomes,

$$V = \frac{1}{3} \times 30 \times 27 \times 33$$

The third is part of the formula.
Which of the following three numbers to third is YOUR CHOICE.
Here are three ways of working out the calculation.

$V = 10 \times 27 \times 33$

$V = 30 \times 9 \times 33$

$V = 9 \times 990$

$V = 10 \times 990 - 990$

$V = 9900 - 990$

$V = 9000 - 90$

$V = 8910$

$V = 30 \times 27 \times 11$

Look for the easiest way !

Now it's your turn...
Without using a calculator, work out each of the following products.
Look for the easy order.

(i) $\frac{1}{3} \times 12 \times 4 \times 2$

(ii) $\frac{1}{3} \times 5 \times 18 \times 7$

(iii) $\frac{1}{3} \times 21 \times 2 \times 2$

(iv) $\frac{1}{3} \times 8 \times 9 \times 4$

(v) $\frac{1}{3} \times \frac{1}{2} \times 6 \times 8 \times 3$

(vi) $\frac{1}{3} \times 15 \times 4 \times 7$

(vii) $\frac{1}{3} \times 3 \times 5^2 \times 8$

(viii) $\frac{1}{3} \times \frac{1}{2} \times 18 \times 4 \times 4$

(ix) $\frac{1}{3} \times 27 \times 10 \times 2$

(x) $\frac{1}{3} \times 30 \times 20 \times 10$

(xi) $\frac{1}{3} \times 18 \times 6 \times 3$

(xii) $\frac{1}{3} \times 3 \times 7^2 \times 3$

(xiii) $\frac{1}{3} \times 60 \times 4 \times 3$

(xiv) $\frac{1}{3} \times 7 \times 6 \times 4$

(xv) $\frac{1}{3} \times \frac{1}{2} \times 7 \times 6 \times 9$

You are half way...
Turn over...

(xvi) $\frac{1}{3} \times 3 \times 8^2 \times 4$

(xvii) $\frac{1}{3} \times 6^2 \times 10$

(xviii) $\frac{1}{3} \times 9^3$

(xix) $\frac{1}{3} \times 15 \times 15 \times 2$

(xx) $\frac{1}{3} \times 2^2 \times 300$

(xxi) $\frac{1}{3} \times 15 \times 20 \times 13$

(xxii) $\frac{1}{3} \times \frac{1}{2} \times 21 \times 22 \times 2$

(xxiii) $\frac{1}{3} \times 10^2 \times 60$

(xxiv) $\frac{1}{3} \times 4^2 \times 9$

(xxv) $\frac{1}{3} \times 18 \times 6^2$

(xxvi) $\frac{1}{3} \times \frac{1}{2} \times (7 + 5) \times 4 \times 10$

(xxvii) $\frac{1}{3} \times \frac{1}{2} \times (10 + 12) \times 9 \times 3$

(xxviii) $\frac{1}{3} \times 60 \times 20 \times 30$

(xxix) $\frac{1}{3} \times 21 \times 7 \times 20$

(xxx) $\frac{1}{3} \times 150 \times 50 \times 4$