**Engenharia Unimonte**
**Física Termodinâmica, ondas e ótica (híbrida). Prof. Simões**
**Formulário para prova D1**

<table>
<tr><th colspan="5">Hidrostática</th></tr>
<tr><td>$\rho = \frac{m}{V}$</td><td>$P = \rho \cdot g \cdot h$</td><td>$\frac{F_1}{A_1} = \frac{F_2}{A_2}$</td><td>$P = mg$</td><td>$E = V \cdot \rho \cdot g$</td></tr>
<tr><th colspan="5">Termodinâmica</th></tr>
<tr><td>$K = ^\circ C + 273$</td><td>$P \cdot V = n \cdot R \cdot T$</td><td>$Q = m \cdot c \cdot \Delta T$</td><td colspan="2" rowspan="2">$\Delta L = \alpha \cdot L_o \cdot \Delta T$<br>$\Delta S = \beta \cdot S_0 \cdot \Delta T$<br>$\Delta V = \gamma \cdot V_0 \cdot \Delta T$<br>$\beta = 2\alpha \quad \gamma = 3\alpha$</td></tr>
<tr><td>$\frac{^\circ C}{5} = \frac{^\circ F - 32}{9}$</td><td>$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$</td><td>$W = P \cdot \Delta V$<br>$W \Rightarrow Área\ interna$<br>$no\ gráfico\ P \times V$</td></tr>
<tr><th colspan="5">MHS</th></tr>
<tr><td>$f = \frac{1}{T}$</td><td>$\omega = 2\pi f; \quad \omega = \frac{2\pi}{T}$</td><td>$T_{mola} = 2\pi\sqrt{\frac{m}{K}}$</td><td colspan="2">$f_{mola} = \frac{1}{2\pi}\sqrt{\frac{K}{m}}$</td></tr>
<tr><td>$T_{pêndulo} = 2\pi\sqrt{\frac{L}{g}}$</td><td>$f_{pêndulo} = \frac{1}{2\pi}\sqrt{\frac{g}{L}}$</td><td>$v_{corda} = \sqrt{\frac{F}{\mu}}$</td><td colspan="2">$\mu = \frac{m}{L}$</td></tr>
<tr><th colspan="5">Fórmulas de áreas</th></tr>
<tr><td colspan="2">$A_{trapézio} = \frac{B + b}{2} \cdot h$</td><td colspan="3">$A_{triângulo} = \frac{B \cdot h}{2}$</td></tr>
</table>