

## Thema :

# Formelsammlung Klasse 10B

### rechteckige

$$A_M = 2 * a * h_{sa} + 2 * b * h_{sb}$$

$$A_O = a * b + 2 * a * h_{sa} + 2 * b * h_{sb}$$

### Pyramide:

$$V = \frac{a * b * h_K}{3}$$

$$h_s^2 = \left(\frac{a}{2}\right)^2 + h_K^2 \text{ (Pythagoras)}$$

$$S_K^2 = \left(\frac{a}{2}\right)^2 + h_s^2 \text{ (Pythagoras)}$$

$$S_K^2 = \frac{d^2}{4} + h_K^2 \text{ (Pythagoras)}$$

$$h_K^2 = h_s^2 - \left(\frac{a}{2}\right)^2$$

$$h_K^2 = s^2 - \left(\frac{e}{2}\right)^2 = s^2 - \left(\frac{a}{2}\sqrt{2}\right)^2$$

### Kegel:

$$A_M = p * r * S$$

$$A_M = p * \frac{d}{2} * S$$

$$A_O = p * r^2 + p * r * S$$

$$A_O = p * r * (r + S)$$

$$V = \frac{p * r^2 * h_K}{3}$$

$$V = \frac{p * d^2 * h_K}{12}$$

$$S^2 = r^2 + h_K^2 \text{ (Pythagoras)}$$

$$S^2 = \frac{d^2}{4} + h_K^2 \text{ (Pythagoras)}$$

### Kegelstumpf:

$$A_M = p * S * (r_G + r_D)$$

$$A_O = p * [r_G^2 + r_D^2 + S * (r_G + r_D)]$$

$$V = p * \frac{h_K}{3} * (r_G^2 + r_G * r_D + r_D^2)$$

$$V = p * \frac{h_K}{12} * (d_G^2 + d_G * d_D + d_D^2)$$

$$S^2 = h_K^2 + (r_G - r_D)^2 \text{ (Pythagoras)}$$

### Kugel