

Schularbeit Gleichungen

31.3.2017

1) $8y - 5(y+3) = y - 7$

$8y - 5y - 15 = y - 7$

$3y - 15 = y - 7 \quad | +15$

$3y = y + 8 \quad | -y$

$2y = 8 \quad | :2$

$y = 4$ ✓

2) $(2x-5)^2 = 4x^2 - 10$

$4x^2 - 20x + 25 = 4x^2 - 10 \quad | -4x^2$

$-20x + 25 = -10 \quad | -25$

$-20x = -35 \quad | :20$

$x = 1,75$ ✓

7) $d = 12,4 \text{ cm} \quad r = 6,2 \text{ cm} \quad A = \frac{r^2 \cdot \pi \cdot \alpha}{360}$

$\alpha = 75^\circ$

$A = ?$

$A = \frac{6,2^2 \cdot \pi \cdot 75}{360}$

$A = 25,16 \text{ cm}^2$ ✓

8) $d = 67 \text{ cm} \quad r = 33,5 \quad A = \frac{r^2 \cdot \pi \cdot \alpha}{360}$

$\alpha = 80^\circ$

$A = ?$

$A = \frac{33,5^2 \cdot \pi \cdot \alpha}{360}$

$A = 783,47 \text{ cm}^2 \approx \underline{78,35 \text{ cm}}$

10) $a = 5,5 \text{ cm}$

$h = 4 \text{ cm}$

$h = 316 \text{ cm}$

$V = ?$

$O = ?$

~~$V = a^2 \cdot h$~~

~~$V = 5,5^2 \cdot 4 = 121 \text{ cm}^3$~~

~~$O = 2 \cdot a^2 + 4 \cdot a \cdot h$~~

~~$O = (60,5 + 79,2)$~~

~~$O = 139,7 \text{ cm}^3$~~

11) $a = 7$

$= 24$