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b)  $2r = 18 \text{ cm}$   
 $r = 9 \text{ cm}$

$P = 486\pi \text{ cm}^2$   
 $V = 1458\pi \text{ cm}^3$

$P = 6\pi r^2$   
 $P = 6 \cdot \pi \cdot 81$   
 $P = 486\pi \text{ cm}^2$

$V = \sigma \cdot v$   
 $V = \pi \cdot 9^2 \cdot 18$   
 $V = 81 \cdot 18 \pi$   
 $V = 1458\pi \text{ cm}^3$

c)  $v = 42 \text{ cm}$   
 $r = 21 \text{ cm}$

$P = 2646\pi \text{ cm}^2$   
 $V = 18522\pi \text{ cm}^3$

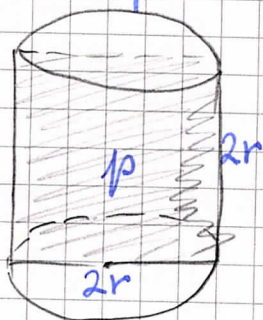
$v = 2r$   
 $42 = 2r$   
 $r = 21 \text{ cm}$

$P = 6\pi r^2$   
 $P = 6 \cdot \pi \cdot 21^2$   
 $P = 6 \cdot 441\pi$   
 $P = 2646\pi \text{ cm}^2$

$V = \pi r^2 \cdot v$   
 $V = \pi \cdot 21^2 \cdot 42$   
 $V = \pi \cdot 441 \cdot 42$   
 $V = 18522\pi$

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VALJ - enostranični  
 osni presek je pravokotnik - KVADRAT



a)  $p = 36$   
 $a = \sqrt{36}$   
 $a = 6 \text{ cm}$

$a = 2r$   
 $6 = 2r$   
 $r = 3 \text{ cm}$

b)  $v = 2r$   
 $v = 2 \cdot 3$   
 $v = 6 \text{ cm}$

c)  $\sigma = \pi r^2$   
 $\sigma = 9\pi \text{ cm}^2$

c)  $p\ell = 2\pi r \cdot v$   
 $p\ell = 2\pi \cdot 3 \cdot 6$   
 $p\ell = 36\pi \text{ cm}^2$

$960 : 32 = 30$   
 $=$

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$P = 1472\pi \text{ cm}^2$   
 $V = 256\pi \text{ cm}^3$

a)  $p\ell = ?$

$P = 2\sigma + p\ell$   
 $1472\pi = 2 \cdot 256\pi + p\ell$

$1472\pi = 512\pi + p\ell$

$p\ell = 1472\pi - 512\pi$

$p\ell = 960\pi \text{ cm}^2$

b)  $r = ?$   
 $\sigma = \pi r^2$   
 $256\pi = \pi r^2$   
 $r^2 = 256$   
 $r = \sqrt{256}$   
 $r = 16 \text{ cm}$

a)  $p\ell = 960\pi \text{ cm}^2$

b)  $r = 16 \text{ cm}$

c)  $v = 30 \text{ cm}$

c)  $V = 7680\pi \text{ cm}^3$

$p\ell = 2\pi r \cdot v$   
 $960\pi = 2\pi \cdot 16 \cdot v$   
 $960 = 32v / : 32$   
 $v = 30 \text{ cm}$

$V = \sigma \cdot v$   
 $V = 256\pi \cdot 30$   
 $V = 7680\pi \text{ cm}^3$

Rešitve : 9. razred : 7. teden - 2 ura

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VALJ

$$\sigma = 121 \pi \text{ cm}^2$$

$$p\ell = 220 \pi \text{ cm}^2$$

$$\text{a) } P = 462 \pi \text{ cm}^2$$

$$\text{b) } r = 11 \text{ cm}$$

$$\text{c) } v = 10 \text{ cm}$$

$$\text{c) } V = 1210 \pi \text{ cm}^3$$

$$P = 2\sigma + p\ell$$

$$P = 2 \cdot 121 \pi + 220 \pi$$

$$P = 242 \pi + 220 \pi$$

$$\underline{P = 462 \pi \text{ cm}^2}$$

$$p\ell = 2\pi r v$$

$$220 \pi = 2\pi \cdot 11 \cdot v$$

$$220 \pi = 22\pi \cdot v \quad /: 22\pi$$

$$\underline{v = 10 \text{ cm}}$$

$$\sigma = \pi r^2$$

$$121 \pi = \pi r^2$$

$$r^2 = 121$$

$$r = \sqrt{121}$$

$$\underline{r = 11 \text{ cm}}$$

$$V = \sigma \cdot v$$

$$V = 121 \pi \cdot 10$$

$$\underline{V = 1210 \pi \text{ cm}^3}$$



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Rešitve : 9. razred; 7. leden - Lura

VALJ - najprej bom P in V računala za cel valj, nato bom upoštevala, da gre za polovico.

Širina žleba = premer osnovne ploskve  
 dolžina žleba = višina valja

VALJ

$$\begin{aligned} 2r &= 70 \text{ cm} \\ r &= 35 \text{ cm} \\ v &= 150 \text{ cm} \end{aligned}$$

$$V = \sigma \cdot v$$

$$V = 1225\pi \cdot 150$$

$$\underline{V = 183750\pi \text{ cm}^3}$$

$$V =$$

$$P =$$

$$\sigma =$$

$$P = 2\pi r(r+v)$$

$$P = 2\pi \cdot 35(35+150)$$

$$P = 70\pi \cdot 185$$

$$\underline{P = 12950\pi \text{ cm}^2}$$

$$\sigma = \pi r^2$$

$$\sigma = \pi \cdot 35^2$$

$$\sigma = 1225\pi \text{ cm}^2$$

$$\begin{array}{r} 35 \cdot 35 \\ \underline{105} \\ 175 \\ \hline 1225 \end{array}$$

$$\begin{array}{r} 1225 \cdot 150 \\ \underline{1225} \\ 61250 \\ \hline 183750 \end{array}$$

$$\begin{array}{r} 185 \cdot 70 \\ \underline{12950} \end{array}$$

ŽLEB

$$P_v : 2 = 12950\pi : 2 = 6475\pi \text{ cm}^2 \doteq 20331,5 \text{ cm}^2 = 2,03315 \text{ m}^2$$

$$V_v : 2 = 183750\pi : 2 = 91875\pi \text{ cm}^3 \doteq 288487,5 \text{ cm}^3 = 288,5 \text{ l}$$

$$\begin{array}{r} 6475 \cdot 3,14 \\ \underline{19425} \\ 6475 \\ 25900 \\ \hline 20331,50 \end{array}$$

$$\begin{array}{r} 91875 \cdot 3,14 \\ \underline{275625} \\ 91875 \\ 367500 \\ \hline 288487,50 \text{ cm}^3 \end{array}$$

\* če v kalkulatorju pritisnemo znak  $\pi$  za množenje se rezultat malenkost spremeni

Odgovor: Potrebovali so približno  $2 \text{ m}^2$  ploščine, žleb drži približno  $288,5 \text{ l}$  vode.