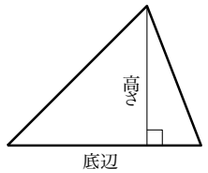
数学Ⅰ　冬休み補習プリント＃１

年　　組　　号

氏名

■　面積・体積（中学校の復習）

■　三角形の面積



$$三角形の面積 = \frac{1}{2} \times 底辺 \times 高さ$$

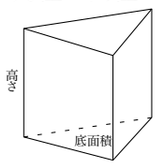
■　円の面積
■　円周の長さ

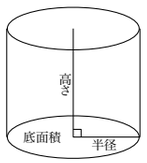
$$円周の長さ = 2 \times \pi \times 半径$$
$$円の面積 = \pi \times 半径^2$$

■　おうぎ形の弧の長さ
■　おうぎ形の面積

$$弧の長さ = 円周の長さ \times \frac{角度°}{360°}$$
$$おうぎ形の面積 = 円の面積 \times \frac{角度°}{360°}$$

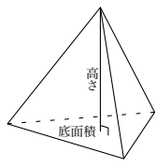
■　角柱・円柱の体積

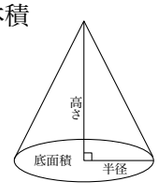




$$角柱・円柱の体積 = 底面積 \times 高さ$$

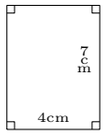
■　角すい・円すいの体積

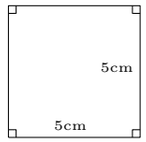




$$\begin{pmatrix} 角すい・円すい \\ の体積 \end{pmatrix} = \frac{1}{3} \times 底面積 \times 高さ$$

1　次の図形の面積を求めなさい。

(1)


(2)


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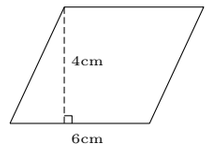

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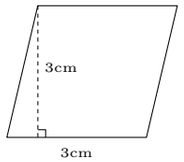

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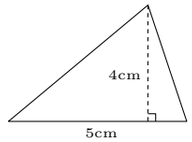

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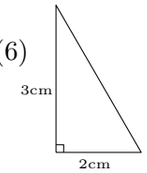

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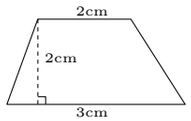
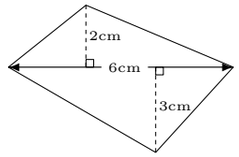
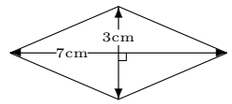
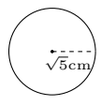


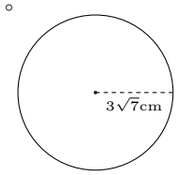
(8)


(9)


2　次の円の**面積**と**円周の長さ**を求めなさい。ただし円周率は π とする。

(1)

(2)


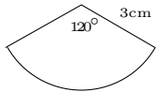
(3)


3 (1) 面積 3π cm^2，弧の長さ 2π cm　(2) 面積 $\frac{2\pi}{3}$ cm^2，弧の長さ $\frac{2\pi}{3}$ cm　(3) 面積 $\frac{40\pi}{3}$ cm^2，弧の長さ $\frac{20\pi}{3}$ cm

4 (1) 70 cm^3　(2) 45 cm^3　(3) 16π cm^3　(4) 18 cm^3　(5) 32π cm^3　(6) $\frac{245}{6}$ cm^3 (7) 28 cm^3　(8) 12 cm^3　(9) $\frac{32\sqrt{5}\pi}{3}$ cm^3

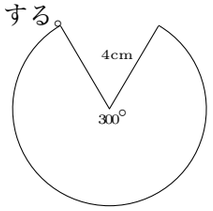
3 次のおうぎ形の**面積**と**弧の長さ**を求めなさい。ただし円周率は π とする。

(1)



(2)

(3)



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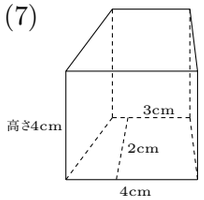
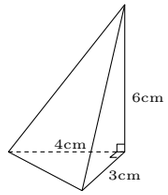


(8)



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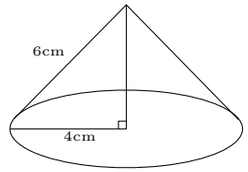
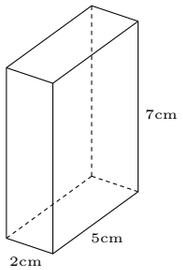


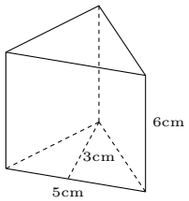
三平方の定理を使って
高さを計算しましょう

4 次の立体の体積を求めなさい。ただし円周率は π とする。

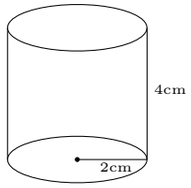
(1)



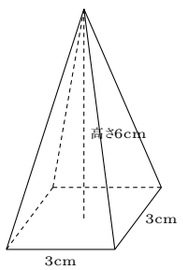
(2)



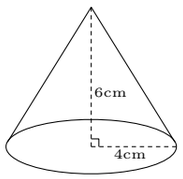
(3)



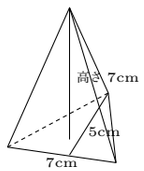
(4)



(5)



(6)



1 (1) 28 cm^2 (2) 25 cm^2 (3) 24 cm^2 (4) 9 cm^2 (5) 10 cm^2 (6) 3 cm^2 (7) 5 cm^2 (8) 15 cm^2 (9) $\frac{21}{2}$ cm^2

2 (1) 面積 4π cm^2，円周 4π cm (2) 面積 5π cm^2，円周 2$\sqrt{5}\pi$ cm (3) 面積 63π cm^2，円周 6$\sqrt{7}\pi$ cm