

ドリルプリント 1年生「円とおうぎ形」 NO. 1 【解答】

◆次の円の、円周と面積を求めよ。

|                                                                                                           |                                                                                                             |                                                                                                             |                                                                                                             |
|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| ①<br>円周 $2\pi \times 3$<br>$= 6\pi(\text{cm})$<br><br>面積 $\pi \times 3 \times 3$<br>$= 9\pi(\text{cm}^2)$ | ②<br>円周 $2\pi \times 5$<br>$= 10\pi(\text{cm})$<br><br>面積 $\pi \times 5 \times 5$<br>$= 25\pi(\text{cm}^2)$ | ③<br>円周 $2\pi \times 6$<br>$= 12\pi(\text{cm})$<br><br>面積 $\pi \times 6 \times 6$<br>$= 36\pi(\text{cm}^2)$ | ④<br>円周 $2\pi \times 7$<br>$= 14\pi(\text{cm})$<br><br>面積 $\pi \times 7 \times 7$<br>$= 49\pi(\text{cm}^2)$ |
|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|

◆次のおうぎ形の、弧の長さとおうぎ形の面積を求めよ。

|                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ⑤<br>弧 $2\pi \times 6 \times \frac{30}{360}$<br>$= 2\pi \times 6 \times \frac{1}{12}$<br>$= \pi(\text{cm})$<br>面積 $\pi \times 6 \times 6 \times \frac{30}{360}$<br>$= \pi \times 6 \times 6 \times \frac{1}{12}$<br>$= 3\pi(\text{cm}^2)$           | ⑥<br>弧 $2\pi \times 10 \times \frac{36}{360}$<br>$= 2\pi \times 10 \times \frac{1}{10}$<br>$= \pi(\text{cm})$<br>面積 $\pi \times 10 \times 10 \times \frac{36}{360}$<br>$= \pi \times 10 \times 10 \times \frac{1}{10}$<br>$= 10\pi(\text{cm}^2)$   | ⑦<br>弧 $2\pi \times 9 \times \frac{40}{360}$<br>$= 2\pi \times 9 \times \frac{1}{9}$<br>$= 2\pi(\text{cm})$<br>面積 $\pi \times 9 \times 9 \times \frac{40}{360}$<br>$= \pi \times 9 \times 9 \times \frac{1}{9}$<br>$= 9\pi(\text{cm}^2)$     | ⑧<br>弧 $2\pi \times 12 \times \frac{45}{360}$<br>$= 2\pi \times 12 \times \frac{1}{8}$<br>$= 3\pi(\text{cm})$<br>面積 $\pi \times 12 \times 12 \times \frac{45}{360}$<br>$= \pi \times 12 \times 12 \times \frac{1}{8}$<br>$= 18\pi(\text{cm}^2)$   |
| ⑨<br>弧 $2\pi \times 12 \times \frac{60}{360}$<br>$= 2\pi \times 12 \times \frac{1}{6}$<br>$= 4\pi(\text{cm})$<br>面積 $\pi \times 12 \times 12 \times \frac{60}{360}$<br>$= \pi \times 12 \times 12 \times \frac{1}{6}$<br>$= 24\pi(\text{cm}^2)$     | ⑩<br>弧 $2\pi \times 10 \times \frac{72}{360}$<br>$= 2\pi \times 10 \times \frac{1}{5}$<br>$= 4\pi(\text{cm})$<br>面積 $\pi \times 10 \times 10 \times \frac{72}{360}$<br>$= \pi \times 10 \times 10 \times \frac{1}{5}$<br>$= 20\pi(\text{cm}^2)$    | ⑪<br>弧 $2\pi \times 9 \times \frac{80}{360}$<br>$= 2\pi \times 9 \times \frac{1}{9}$<br>$= 2\pi(\text{cm})$<br>面積 $\pi \times 9 \times 9 \times \frac{80}{360}$<br>$= \pi \times 9 \times 9 \times \frac{1}{9}$<br>$= 9\pi(\text{cm}^2)$     | ⑫<br>弧 $2\pi \times 8 \times \frac{90}{360}$<br>$= 2\pi \times 8 \times \frac{1}{4}$<br>$= 4\pi(\text{cm})$<br>面積 $\pi \times 8 \times 8 \times \frac{90}{360}$<br>$= \pi \times 8 \times 8 \times \frac{1}{4}$<br>$= 16\pi(\text{cm}^2)$         |
| ⑬<br>弧 $2\pi \times 10 \times \frac{108}{360}$<br>$= 2\pi \times 10 \times \frac{3}{10}$<br>$= 6\pi(\text{cm})$<br>面積 $\pi \times 10 \times 10 \times \frac{108}{360}$<br>$= \pi \times 10 \times 10 \times \frac{3}{10}$<br>$= 30\pi(\text{cm}^2)$ | ⑭<br>弧 $2\pi \times 6 \times \frac{120}{360}$<br>$= 2\pi \times 6 \times \frac{1}{3}$<br>$= 4\pi(\text{cm})$<br>面積 $\pi \times 6 \times 6 \times \frac{120}{360}$<br>$= \pi \times 6 \times 6 \times \frac{1}{3}$<br>$= 12\pi(\text{cm}^2)$        | ⑮<br>弧 $2\pi \times 4 \times \frac{135}{360}$<br>$= 2\pi \times 4 \times \frac{3}{8}$<br>$= 3\pi(\text{cm})$<br>面積 $\pi \times 4 \times 4 \times \frac{135}{360}$<br>$= \pi \times 4 \times 4 \times \frac{3}{8}$<br>$= 6\pi(\text{cm}^2)$   | ⑯<br>弧 $2\pi \times 10 \times \frac{144}{360}$<br>$= 2\pi \times 10 \times \frac{2}{5}$<br>$= 8\pi(\text{cm})$<br>面積 $\pi \times 10 \times 10 \times \frac{144}{360}$<br>$= \pi \times 10 \times 10 \times \frac{2}{5}$<br>$= 40\pi(\text{cm}^2)$ |
| ⑰<br>弧 $2\pi \times 6 \times \frac{150}{360}$<br>$= 2\pi \times 6 \times \frac{5}{12}$<br>$= 5\pi(\text{cm})$<br>面積 $\pi \times 6 \times 6 \times \frac{150}{360}$<br>$= \pi \times 6 \times 6 \times \frac{5}{12}$<br>$= 15\pi(\text{cm}^2)$       | ⑱<br>弧 $2\pi \times 10 \times \frac{216}{360}$<br>$= 2\pi \times 10 \times \frac{3}{5}$<br>$= 12\pi(\text{cm})$<br>面積 $\pi \times 10 \times 10 \times \frac{216}{360}$<br>$= \pi \times 10 \times 10 \times \frac{3}{5}$<br>$= 60\pi(\text{cm}^2)$ | ⑲<br>弧 $2\pi \times 8 \times \frac{225}{360}$<br>$= 2\pi \times 8 \times \frac{5}{8}$<br>$= 10\pi(\text{cm})$<br>面積 $\pi \times 8 \times 8 \times \frac{225}{360}$<br>$= \pi \times 8 \times 8 \times \frac{5}{8}$<br>$= 40\pi(\text{cm}^2)$ | ⑳<br>弧 $2\pi \times 9 \times \frac{240}{360}$<br>$= 2\pi \times 9 \times \frac{2}{3}$<br>$= 12\pi(\text{cm})$<br>面積 $\pi \times 9 \times 9 \times \frac{240}{360}$<br>$= \pi \times 9 \times 9 \times \frac{2}{3}$<br>$= 54\pi(\text{cm}^2)$      |