

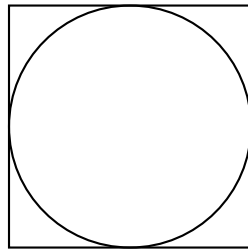
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**1**

$$S = 1 + 2 + \dots + 100. :$$
$$S = \frac{n(n+1)}{2}.$$
$$, S = \frac{100 \cdot 101}{2} = 5050.$$

**2**

$$4. \quad . :$$
$$: A = \pi r^2, \quad r = \frac{4}{2} = 2.$$
$$, A = \pi \cdot 2^2 = 4\pi.$$



**3**

$$2x + 3 = 13. :$$
$$2x + 3 = 13 \implies 2x = 10 \implies x = 5.$$

**5**

$$\lim_{x \rightarrow 2} \frac{x^2 - 4}{x - 2}. :$$
$$x^2 - 4 = (x - 2)(x + 2).$$
$$, \lim_{x \rightarrow 2} \frac{(x-2)(x+2)}{x-2} = \lim_{x \rightarrow 2} (x + 2) = 4.$$