

نام و نام خانوادگی: ..... شماره دانشجویی: ..... تاریخ: ..... ۱۹ ..... کلاس: .....  
 با استفاده از روشی که یاد گرفته‌اید، پاسخ دهید.



$$\rightarrow (3 \times 3) + 4 \times 4 = r^2 = \boxed{25}$$

(الف)

$$| (0, 0, 0) - (3, 4) | = 5$$

$$\rightarrow 25 - 25 = \boxed{0}$$

(ب)



$$\rightarrow 16 - 16 + 9 = \boxed{9}$$

(الف)

$$| (0, 0, 0) - (3, 4) | = \boxed{5}$$

(ب)

$$\frac{\pi}{2} \times 9 = \boxed{\frac{9\pi}{2}}$$

(الف)

$$9R + 2R = \frac{\pi}{r} + 9 = \boxed{\frac{12 + \pi}{r}}$$

(ب)

$$\frac{1}{r} \times 16 \times d \times \frac{\sqrt{r}}{r} = \boxed{16 \sqrt{r}}$$

(الف)

$$a = \sqrt{2d + 4r - \left( \frac{16 \times r}{r} \right)} = \sqrt{2d + 4r - 16} = \boxed{V} \rightarrow 16 + d + 4r = \boxed{25}$$

(ب)

$$\frac{-\tan n + r \tan n}{-\tan n - \tan n} = \frac{r \tan n}{-r \tan n} = -1$$

$$\frac{\frac{\pi}{12}}{\frac{\pi}{1}} = \frac{p}{12} \Rightarrow p = 10$$

$$\frac{\sin n - \cos n + r \sin n + r \cos n}{\sin^2 n - \cos^2 n + \sin^2 n - \cos^2 n} = \frac{r \sin n + r \cos n}{\sin^2 n - \cos^2 n}$$

$\boxed{\tan n = r}$   
 $\uparrow$   
 $\sin n = r \cos n$   
 $\uparrow$

$$\Rightarrow \sin^2 n + \cancel{r \sin n \cos n} + \cos^2 n + \sin^2 n + \cos^2 n - \cancel{r \sin n \cos n} = r \sin^2 n - r \cos^2 n$$

$$\sin^2 n - r \cos^2 n + 1 = r \sin^2 n + r \cos^2 n - r$$

$$0 = r \sin^2 n + r \cos^2 n - 1 \Rightarrow r = \frac{1}{\cos^2 n} \Rightarrow \cos^2 n = \frac{1}{r}$$

$$\Rightarrow \sin^2 n = \frac{d}{r}$$

$$\sin^2 n - r \cos^2 n + 1 = r(\sin^2 n + \cos^2 n - 1) \Rightarrow \boxed{\tan^2 n = \frac{d}{r}}$$