LEMBAR KERJA SISWA

NAMA :

KELAS:

LENGAKAPI TITIK – TITIK DI BAWAH INI!

1. Diketahui fungsi distribusi peluang variabel acak diskrit X berikut. $f(x) =$

   $\begin{cases} 0, untuk\ x\ yang\ lain \\ \frac{x-k}{10}, untuk\ x = 3,4,5, dan\ 6 \end{cases}$

   Nilai k adalah …

   Jawab :

$f(x) = \begin{cases} 0, untuk\ x\ yang\ lain \\ \frac{x-k}{10}, untuk\ x = 3,4,5, dan\ 6 \end{cases}$

$f(1) = 0$

$f(2) = \frac{\cdots}{\cdots}$

$f(3) = \frac{x-k}{10}$

$f(3) = \frac{3-k}{\cdots}$

$f(4) = \frac{x-k}{10}$

$f(4) = \frac{4-\cdots}{10}$

$f(5) = \frac{x-k}{10}$

$f(5) = \frac{\cdots\cdots - \cdots\cdots}{10}$

$f(6) = \frac{x-k}{10}$

$f(6) = \frac{\cdots\cdots - \cdots\cdots}{\cdots}$

$\sum_{x=1}^{6} f(x) = 1$

$\sum_{x=1}^{6} f(x) = f(1) + f(2) + f(3) + f(4) + f(5) + f(6)$

$$1 = 0 + \square + \frac{3-k}{10} + \frac{\square}{10} + \frac{\square}{10} + \frac{\square}{10}$$

$$1 = \frac{3 + \square + \square + 6 - \square\, k}{10}$$

$$1 = \frac{\square - 4k}{10}$$

$$1 \times 10 = 18 - 4k$$

$$10 - 18 = -4k$$

$$\square = -4k$$

$$k = \square$$

2. Diketahui tabel distribusi kumulatif variabel acak diskrit X berikut.

$X = x$	1	2	3
$F(x)$	$\frac{1}{2}$	n	1

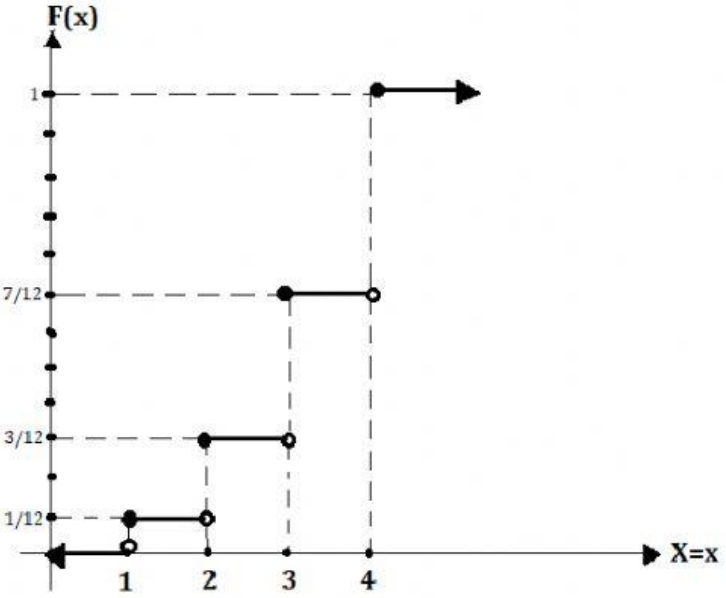
Jika $f(2) = \frac{1}{4}$, nilai n adalah …

Jawab:

$$f(1) = F(1) - F(0)$$
$$= \frac{1}{2} - 0$$
$$= \frac{1}{2}$$

$$n = F(2)$$
$$= f(1) + f(2)$$
$$= \frac{\square}{2} + \frac{\square}{4}$$
$$= \frac{\square}{4}$$

3. Diketahui grafik distribusi kumulatif variabel acak diskrit X berikut.



Nilai $P(X = 1\ atau\ X = 3)$ adalah …

Jawab :

$$
\begin{aligned}
P(X = 1 \; atau \; X = 3) &= P(X = 1) + P(X = 3) \\
&= f(1) + f(3) \\
&= \left(F(\square) - F(0)\right) + (F(3) - F(2)) \\
&= \left(\frac{1}{12} - 0\right) + (\frac{\square}{12} - \frac{3}{\square}) \\
&= \frac{\square}{\square} + \frac{4}{12} \\
&= \frac{\square}{\square}
\end{aligned}
$$