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 :

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

$f(1) = 0$

$f(2) = \boxed{\ldots}$

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

$f(3) = \dfrac{3-k}{\boxed{\ldots}}$

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

$f(4) = \dfrac{4-\boxed{\ldots}}{10}$

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

$f(5) = \dfrac{\boxed{\ldots\ldots} - \boxed{\ldots\ldots}}{10}$

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

$f(6) = \dfrac{\boxed{\ldots\ldots} - \boxed{\ldots\ldots}}{\boxed{\ldots}}$

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

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

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

$$1 = \frac{3 + \boxed{\cdots\cdots} + \boxed{\cdots\cdots} + 6 - \boxed{\cdots\cdots}\ k}{10}$$

$$1 = \frac{\boxed{\cdots\cdots} - 4k}{10}$$

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

$$10 - 18 = -4k$$

$$\boxed{\cdots\cdots} = -4k$$

$$k = \boxed{\cdots\cdots}$$

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

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

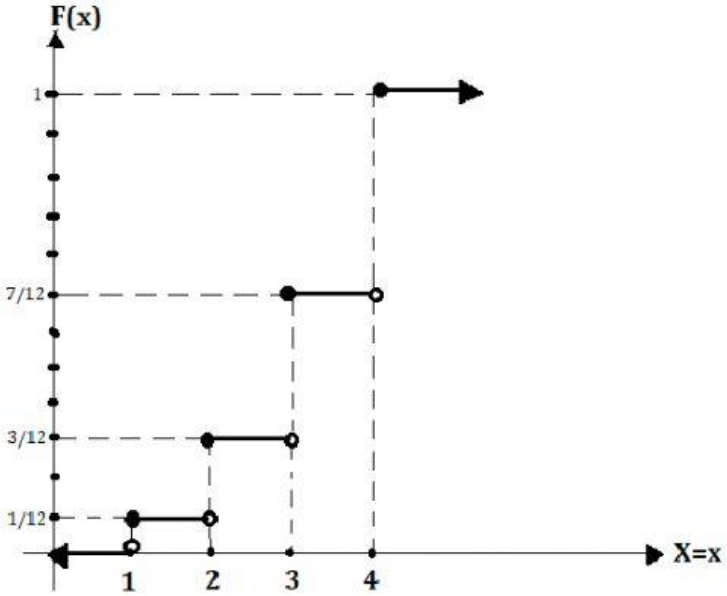
Jika $f(2) = \frac{1}{4}$, nilai n adalah …

Jawab:

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

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

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



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

Jawab :

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