2. Which coordinates best represent point $P$ ?

F $(-1,1)$
G $(-1,0.5)$
H $(0.5,-1)$


J $(1,0.5)$
3. Triangle $A B C$ has coordinates $A(0.5,1.5)$, $B(1.5,1)$, and $C(1,0.5)$. What will be the new coordinates of point $C$ if the triangle is translated 3 units to the left and 2 units down?


A $(-2,-2.5)$
B $(-2,-1.5)$
C $(-1,-2.5)$
D $(-1,-3.5)$
4. Name the coordinates of the center of the circle.

F $(-8,8)$
G $(-8,4)$
H $(4,-8)$
J $(8,4)$


## Solution

The scale is 0.5 unit per grid line on both axes. Reading down to the $x$-axis from $P$ gives an $x$-coordinate of -1 . Reading across to the $y$-axis from $P$ gives a $y$-coordinate is 0.5 . Point $P$ has coordinates ( $-1,0.5$ ).

The correct answer is H .
(F)
(G)
(H)
(J)

## Solution

To translate the triangle 3 units to the left, subtract 3 units from the $x$-coordinate of each point. For point $C$ :

$$
x=1-3=-2
$$

To translate the triangle 2 units down, subtract 2 units from the $y$-coordinate of each point. For point $C$ :

$$
y=0.5-2=-1.5
$$

The new coordinates are ( $-2,-1.5$ ).
The correct answer is $B$.
(A)
(B)
(C)
(D)

## Solution

The scale is 4 units per grid line on both axes. Reading down to the $x$-axis from the center of the circle, you can see that the $x$-coordinate is -8 . Reading across to the $y$-axis from the center of the circle, you can see that the $y$-coordinate is 4 . The coordinates are therefore $(-8,4)$.

The correct answer is $G$.
(F)
(G)
(H)
(J)

