

libmpl_toolkits/axes_grid1/axes_size.py - Entity Definition

```
1 class Scaled(_Base):
2 """
3     Simple scaled(?) size with absolute part = 0 and
4     relative part = *scalable_size*.
5 """
6     def __init__(self, scalable_size):
7         self._scalable_size = scalable_size
8     def get_size(self, renderer):
9         rel_size = self._scalable_size
10        abs_size = 0.
11        return rel_size, abs_size
12 Scalable = Scaled
13 def _get_axes_aspect(ax):
14     aspect = ax.get_aspect()
15     if aspect == "auto":
16         aspect = 1.
17     return aspect
```

galleries/examples/axes_grid1/demo_fixed_size_axes.py - Entity Usage

```
1 # The first & third items are for padding and the second items are for the
2 # Axes. Sizes are in inches.
3 h = [Size.Fixed(1.0), Size.Scaled(1.), Size.Fixed(.2)]
4 v = [Size.Fixed(0.7), Size.Scaled(1.), Size.Fixed(.5)]
5 divider = Divider(fig, (0, 0, 1, 1), h, v, aspect=False)
6 # The width and height of the rectangle are ignored.
7 ax = fig.add_axes(divider.get_position(),
8                   axes_locator=divider.new_locator(nx=1, ny=1))
9 ax.plot([1, 2, 3])
10 plt.show()
```

Question Metadata

Repo: matplotlib/matplotlib

Question ID: 133

Category: entity_declaration_call_specific

Entity: Scaled

Correct Answer: C

MCQ Question

Question: How does the `Scaled` class handle the case where the absolute part of the size is zero, and what implications does this have for the plot's layout?

- A) When the absolute part of the size is zero, the `Scaled` class returns `abs_size = 1`, ensuring that the plot always has a minimum size.
- B) The `Scaled` class handles the case where the absolute part of the size is zero by setting it to `None`, effectively removing the size from the plot.
- C) When the absolute part of the size is zero, the `Scaled` class returns `abs_size = 0`, effectively ignoring the absolute part of the size. This can lead to distorted plots, especially when the aspect ratio is not suitable for the data being represented.
- D) The `Scaled` class uses a heuristic to handle the case where the absolute part of the size is zero, scaling the size to a default value of 1.0.