```python
import numpy as np

def f(x):  # Objective function
    return x**2

def f_grad(x):  # Gradient (derivative) of the objective function
    return 2 * x

def bgd(alpha, f_grad):
    x = 6.0          # Initial value of x
    results = [x]
    epoch = 8        # Number of iterations
    for i in range(epoch):
        x -= alpha * f_grad(x)
        results.append(float("%.6f" % x))
    print(f'epoch {epoch}, x: {x:.6f}')
    return results

results = bgd(0.25, f_grad)
print(results)
```

```
epoch 8, x: 0.023438
[6.0, 3.0, 1.5, 0.75, 0.375, 0.1875, 0.09375, 0.046875, 0.023438]
```