In [27]:

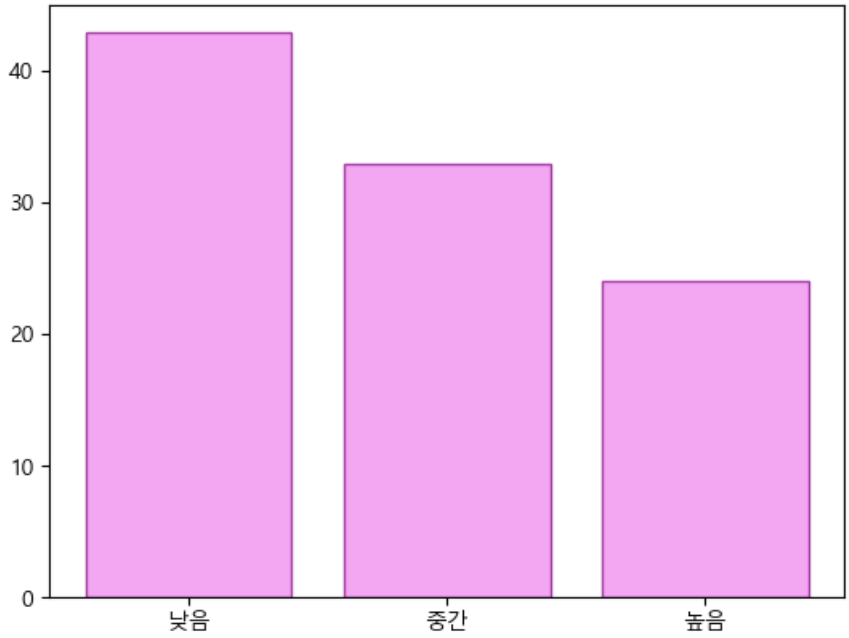
```
# 연습문제 1, p55
# d type = low, middle, high
from matplotlib import pyplot as plt

non_serious_heart_attack = [29, 17, 18]
serious_heart_attack = [19, 20, 9]
values, re_values, tx_values = [], [], []
label = ['낮음', '중간', '높음']

# 콜레스테롤 수치에 따른 막대그래프, 주변 분포 구하기
# serious_heart_attack의 변수 수를 계산하여 반복하여 더해 저장
for i in range(len(non_serious_heart_attack)):
    xs = non_serious_heart_attack[i] + serious_heart_attack[i]
    values.append(xs)

# 토탈 값 구하기
total = sum(non_serious_heart_attack) + sum(serious_heart_attack)
for i in range(3):
    data = round((values[i] / total), 3)
    data = round((data * 100), 1)
    re_values.append(data)

plt.rc('font', family='Malgun Gothic')
plt.bar(label, re_values, color='violet', alpha=0.7, edgecolor='purple')
plt.show()
```




In [39]:

```
# 연습문제 1.1, p55
from matplotlib import pyplot as plt

non_serious_heart_attack = [29, 17, 18]
serious_heart_attack = [19, 20, 9]

thread = sum(non_serious_heart_attack), sum(serious_heart_attack)
values = []
desc = ['치명적이지\n않은', '치명적인']

for i in range(len(thread)):
    total = sum(thread)
    data = round((thread[i] / total), 3)
    data = round((data * 100), 1)
    values.append(data)

plt.rc('font', family='Malgun Gothic')
plt.bar(desc, values, color='violet', alpha=0.7, edgecolor='purple')
plt.show()
```