

1.3 Derivatives in PyTorch

LATEST SUBMISSION GRADE

100%

1. How would you determine the derivative of $y = 2x^3 + x$ at $x=1$?

1 / 1 point

☒

```
1 x = torch.tensor(1.0, requires_grad=True)
2 y = 2 * x ** 3 + x
3 y.backward()
4 x.grad
```

☐

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1 x = torch.tensor(1.0, requires_grad=True)
2 y = 2 * x ** 3 + x
3 y.backward()
4 y.grad
```

✓ Correct
correct

2. Try to determine partial derivative $\frac{\partial f}{\partial u}$ of the following function where $u=2$ and $v=1$: $f=uv+(uv)**2$

1 / 1 point

☐

```
1 u = torch.tensor(2.0, requires_grad=True)
2 v = torch.tensor(1.0, requires_grad=True)
3 f = u * v + (u * v) ** 2
4 f.backward()
5 u.grad
```

☐

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2 y = 2 * x ** 3 + x
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3 f = u * v + (u * v) ** 2
4 f.backward()
5 print("The result is ", v.grad)
```

✓ Correct
correct