# Quiz 2 Results

## Question 1 (1 / 1 pts)

**Let** $F(x,y)$ **be "x talked with y over the phone". Which of the following represents "Everybody talked with everybody over the phone"?**

- **Selected Answer:** $\forall x \forall y F(x,y)$
- **Correct Answer:** $\forall x \forall y F(x,y)$ ✅

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## Question 2 (1 / 1 pts)

**Which of the following best characterizes the following statements?**

**a.** If -1 < 0, then 5 = 6.
**b.** 4 + 1 = 3 if and only if 2 + 3 = 3.

- **Selected Answer:** Only **b** is True
- **Correct Answer:** Only **b** is True ✅

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## Question 3 (1 / 1 pts)

**Let $Q(x)$ denote the statement "x + 1 > 2x". The domain is the set of positive integers (positive integers do not include 0). Which of the following best characterizes the two statements?**

**a.** $\exists x\, Q(x)$
**b.** $\forall x \neg Q(x)$

- **Selected Answer:** Only **b** is True
- **Correct Answer:** Only **b** is True ✅

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## Question 4 (1 / 1 pts)

**Rewrite $\neg(\exists x \exists y P(x,y) \wedge \forall x \exists y \neg Q(x,y))$ so that negations appear only within predicates (negation on $P(x,y)$ and/or $Q(x,y)$, but not on anything else).**

- **Selected Answer:** $\forall x \forall y \neg P(x,y) \vee \exists x \forall y Q(x,y)$
- **Correct Answer:** $\forall x \forall y \neg P(x,y) \vee \exists x \forall y Q(x,y)$

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# Total Score: 4 / 4 pts