

Arguments Activity

For each of the arguments below determine if it is valid or invalid. Circle the correct answer and give the name of the correct argument or the fallacy otherwise leave it blank.

1. Valid

Name: Modus Ponens

$$\begin{array}{l} p \rightarrow q \\ p \\ \hline \therefore q \end{array}$$

2. Invalid

Name: Fallacy of assuming the conclusion

$$\begin{array}{l} p \rightarrow q \\ q \\ \hline \therefore p \end{array}$$

3. Valid

Name: Hypothetical syllogism

$$\begin{array}{l} p \rightarrow q \\ q \rightarrow r \\ \hline \therefore p \rightarrow r \end{array}$$

4. Valid

Name: Modus Tollens

$$\begin{array}{l} p \rightarrow q \\ \neg q \\ \hline \therefore \neg p \end{array}$$

5. Valid

Name: Disjunctive syllogism

$$\begin{array}{l} p \vee q \\ \neg q \\ \hline \therefore p \end{array}$$

6. Invalid

Name: Fallacy of denying the hypothesis

$$\begin{array}{l} p \rightarrow q \\ \neg p \\ \hline \therefore \neg q \end{array}$$

7. Valid

Name: Simplification

$$\begin{array}{l} p \wedge q \\ \hline \therefore p \end{array}$$

8. Invalid

Name: _____

$$\begin{array}{l} p \vee q \\ \hline \therefore q \end{array}$$

9. Valid

Name: Conjunction

$$\begin{array}{c} p \\ \underline{q} \\ \therefore p \wedge q \end{array}$$

10. Valid

Name: Addition

$$\begin{array}{c} p \\ \underline{\quad} \\ \therefore p \vee q \end{array}$$

11. Invalid

Name: _____

$$\begin{array}{c} p \\ \underline{\quad} \\ \therefore p \wedge q \end{array}$$

12. Valid

Name: Resolution

$$\begin{array}{c} p \vee q \\ \underline{\neg p \vee r} \\ \therefore \cancel{p} \vee \cancel{r} \\ q \vee r \end{array}$$