

Inductive Reasoning

For use after Section 3-6

Look for a pattern and predict the next two numbers in each sequence.

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| 1. 1, 5, 9, 13, _____, _____ | 2. 19, 17, 15, 13, _____, _____ |
| 3. 1, 3, 6, 10, _____, _____ | 4. 50, 45, 40, 35, _____, _____ |
| 5. 1, 3, 9, 27, _____, _____ | 6. 100, 50, 25, $12\frac{1}{2}$, _____, _____ |
| 7. 0, 1.25, 2.5, 3.75, _____, _____ | 8. $1, 3\frac{1}{2}, 6, 8\frac{1}{2},$ _____, _____ |
| 9. $1, \frac{99}{101}, \frac{97}{101}, \frac{95}{101}, \frac{93}{101},$ _____, _____ | 10. $1, \frac{49}{50}, \frac{24}{25}, \frac{47}{50},$ _____, _____ |
| 11. 81, -27, 9, -3, _____, _____ | 12. 15, -30, 60, -120, _____, _____ |
| 13. 80, 70, 61, 53, _____, _____ | 14. $\frac{1}{2}, 2, 8, 32,$ _____, _____ |

Accept the two statements as given information. State a conclusion based on *deductive* reasoning. If no conclusion can be reached, write *none*.

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| <p>15. Lynne is taller than Becky.
Becky is taller than Eddie.</p> <p>_____</p> | <p>16. Polygon H has more than 5 sides.
Polygon H has fewer than 7 sides.</p> <p>_____</p> |
| <p>17. Al is faster than Frank.
Cliff is faster than Frank.</p> <p>_____</p> | <p>18. All championship swimmers practice at least 3 hours a day.
Anne practices 4 hours a day.</p> <p>_____</p> |
| <p>19. All good basketball players are over 6 feet tall.
Bill is 6 feet 5 inches tall.</p> <p>_____</p> | <p>20. Sandra has won more than 9 tennis tournaments.
Sandra has won fewer than 11 tennis tournaments.</p> <p>_____</p> |
| <p>21. All cows have four legs.
Elsie has four legs.</p> <p>_____</p> | <p>22. Eric is younger than Barry.
Amy is older than Eric.</p> <p>_____</p> |
| <p>23. All licensed drivers are more than 18 years old.
Charles has a driver's license.</p> <p>_____</p> | <p>24. All turtles are reptiles.
Timmy is a turtle.</p> <p>_____</p> |