

Name \_\_\_\_\_

Per. \_\_\_\_\_

Date \_\_\_\_\_

## YOUR HOROSCOPE: WORKSHEET

RESULTS: Bellief in astrology: There were \_\_\_\_\_ YESs, and \_\_\_\_\_ Nos in this class of \_\_\_\_\_ students.

RESULTS: There were \_\_\_\_\_ HITs, and \_\_\_\_\_ MISSes in this class (total of \_\_\_\_\_ students)

RESULTS in other classes (data from teacher: \_\_\_\_\_ HITs, and \_\_\_\_\_ MISSes ... for total of \_\_\_\_\_ students

### PROBABILITY RESULTS DUE TO RANDOM CHANCE:

1. What is the probability that one individual would select the “right” number, just by chance?  $1/$  \_\_\_\_\_
2. What is the total of all of these individual probabilities?  
(the individual probability, step 1, times the total number of students) = \_\_\_\_\_
3. So, about how many students would you expect to select the right number just by chance alone? \_\_\_\_\_

### DISCUSSION QUESTIONS

4. If the class total of hits is close to chance, what does this tell us about the predictability of Sun Signs?
5. If the class total of hits is significantly higher than expected, what could have caused this? (list 2-3)  
How could you critically test or control for each possibility?
6. How did this class' results compare with the results in other classes?
7. If Sun Signs are so fundamental to horoscope interpretation, what do our collective results suggest about the predictability, validity and potential usefulness of horoscopes?
8. What problems did you find in trying to select the Sun Sign description which came closest to how you see yourself?
9. What other tests of astrology can you think of? Consider looking at famous people in various fields. If interested, ask your teacher about doing other tests of astrology as a special project.
10. Why might a person think that his or her horoscope seems to be true?
11. Astrology is “The oldest empirical science in the world.” (Hewitt, 1997, p. 16). Astrology is based on ancient beliefs about planets and stars, employing mysterious patterns and complex calculations to reveal details of individual personalities and potentials, and provide the basis for critical decisions in one's life. Repeated tests and challenges which could have provided support for astrology (“Fair Tests”) have consistently shown the process to be unreliably predictive or descriptive. Furthermore, no mechanism to explain the purported relationship between personalities, destinies, and heavenly bodies has ever been demonstrated; astrology allegedly continues to function due to “mysterious forces”. Explain why astrology is NOT a science, but rather a **pseudoscience**.
12. Do you now think that astrology can give accurate predictions (YES) or not (NO)? \_\_\_\_\_

## YOUR HOROSCOPE: WORKSHEET KEY (sample responses)

RESULTS: There were \_\_\_\_\_ HITS, and \_\_\_\_\_ MISSES in this class (total of \_\_\_\_\_ students)

RESULTS in other classes (data from teacher: \_\_\_\_\_ HITS, and \_\_\_\_\_ MISSES ... for total of \_\_\_\_\_ students)

PROBABILITY RESULTS DUE TO RANDOM CHANCE:

1. What is the probability that one individual would select the “right” number, just by chance?  $1/12$
2. What is the total of all of these individual probabilities? ( $1/12 \times 24 = 2$ ;  $1/12 \times 36 = 3$ )  
(the individual probability, step 1, times the total number of students)
3. So, about how many students would you expect to select the right number just by chance alone? **2 - 3**

DISCUSSION QUESTIONS

4. If the class total of hits is close to chance, what does this tell us about the predictability of Sun Signs?

***The sun-sign traits are apparently not very accurate, therefore are unpredictable.***

5. If the class total of hits is significantly higher than expected, what could have caused this? (list 2-3)  
How could you eliminate or control for each unintended possibility?

***a. there is apparently some relationship between birthdates and these traits.***

***b. some students may know the standard traits for their birth sign.***

***c. some students may have learned the traits for their birth sign, and have consciously or unconsciously tried to live their lives accordingly.***

***One way to reduce influence from knowledge of the traits is to ask students who know or think they know their astrological birth traits to not participate.***

6. How did this class' results compare with the results in other classes? ***[usually similar]***

7. If Sun Signs are so fundamental to horoscope interpretation, what do our collective results suggest about the predictability, validity and potential usefulness of horoscopes?

***Large sample sizes typically show no correlation, therefore horoscopes are useless.***

8. What problems did you find in trying to select the Sun Sign description which came closest to how you see yourself?

***a. same or similar traits in different sets***

***b. most sets had mixture of matching and non-matching traits to my status***

***c. many traits vague or not clear as to degree or intensity***

***d. many traits could be interpreted in different ways***

9. What other tests of astrology can you think of? Consider looking at famous people in various fields. If interested, ask your teacher about doing other tests of astrology as a special project.

***a. compare professionals in a particular career field (sports, etc.) with their signs***

***b. compare annual predictions by astrologers with numbers of hits and misses***

***c. compare horoscopes by different astrologers for the same day***

***d. compare number of divorces between “compatible” partners and “incompatibles”***

10. Why might a person think that his or her horoscope seems to be true?

***We tend to focus on matches, and ignore misses; vagueness allows for multiple interpretations.***

11. ***Pseudoscience: Claimed as a “science”, yet does not follow the rules of science.***