English 3 Summer Assignment, Part Two
Sentence Structure Practice

Instructions:

Read the excerpts below and answer the following questions related to sentence structure (Run-On Sentences, Sentence Fragments and Misplaced Modifiers).

Paranormal Investigators

When detectives set out to solve a crime, they conduct extensive **(1) investigations. Gathering evidence, collecting clues, and interviewing witnesses.** Those who believe in the supernatural follow a similar approach. Their hope is to establish a case for the existence of ghosts in haunted places.

Popularized by reality television shows like *Ghost Adventures* and *Paranormal State*, **(2) viewers, otherwise known as paranormal investigation, have an increasing fascination with ghost hunting.** These programs show investigators' attempts to prove the **(3) existence of ghosts through the use of tools** including electromagnetic field meters, digital thermometers, night vision camcorders, and audio equipment.

Typically, ghost hunters will begin by traveling to a location that is **(4) believed to be haunted they will research** the history of the location and interview witnesses. From there, they will conduct their own investigation. **(5) A team of investigators will search the premises for clues.**

1. A. NO CHANGE
   B. investigations; gathering evidence, collecting clues, and interviewing witnesses.
   C. investigations gathering evidence, collecting clues, and interviewing witnesses.
   D. investigations and gathering evidence, collecting clues, and interviewing witnesses.

2. F. NO CHANGE
   G. viewers, having an increasing fascination with paranormal investigation, are otherwise known as ghost hunters.
   H. paranormal investigators, otherwise known as ghost hunters, have increased viewers' fascination with the supernatural.
   J. paranormal investigators, having an increasing fascination with ghost hunting, are otherwise known as ghost hunters.

3. A. NO CHANGE
   B. existence of ghosts. Through the use of tools
   C. existence of ghosts; through the use of tools
   D. existence of ghosts, through the use of tools

4. The underlined portion can be corrected by all of the following options EXCEPT:

   F. believed to be haunted; they will research
   G. believed to be haunted, where they will research
   H. believed to be haunted. They will research
   J. believed to be haunted and they will research

5. The writer would like to add the phrase "that indicate the presence of ghosts." This phrase should be placed:

   A. after the word *investigators*
   B. after the word *clues*
   C. after the word *team*
   D. after the word *premises*

These encounters are usually recorded using special night-vision cameras. **(6) Special audio equipment of the typical human is also used to try to detect sounds that are out of the range**. Moreover, ghost hunters also use meters to detect the presence of unexplained electromagnetic **(7) fields. As well as digital thermometers** to measure sudden cold spots. When the team gathers multiple unexplained **(8) pieces of evidence, they are often confident** that they have, in fact, witnessed the presence of the supernatural.

(9) Despite the popularity of this television genre, there is currently no scientific evidence that proves the existence of ghosts. In fact, some scientists have attempted to debunk the "evidence" found by ghost hunters. Whereas some ghost hunters cite low electro-magnetic fields, unexplained cool spots, and sudden movements and vibrations **(10) as indications of the paranormal. Others** argue that these natural phenomena simply make people subconsciously feel frightened and nervous.

(11) A scientist in England, to prove this theory, Dr. Richard Lord set out to create his own experiment. During a concert, unbeknownst to the audience, scientists filled the concert hall with inaudible sound waves during several of the songs. Many audience

6. F. NO CHANGE
   G. Special audio equipment is also used to try to detect sounds of the typical human that are out of the range.
   H. Special audio equipment is also used to try to detect sounds that are out of the range of the typical human.
   J. Special audio equipment is also used of the typical human to try to detect sounds that are out of the range.

7. A. NO CHANGE
   B. fields as well. As digital thermometers
   C. fields as well as digital thermometers
   D. fields; as well as digital thermometers

8. F. NO CHANGE
   G. pieces of evidence. They are often confident
   H. pieces of evidence; they are often confident
   J. pieces of evidence, and they are often confident

9. A. NO CHANGE
   B. Despite the popularity of this television genre;
   C. The popularity of this television genre.
   D. Despite the popularity, this television genre

10. F. NO CHANGE
    G. as indications of the paranormal, others
    H. as indications of the paranormal, but others
    J. as indications of the paranormal; others

11. A. NO CHANGE
    B. To prove this theory, a scientist in England set out to create his own experiment, Dr. Richard Lord.
    C. A scientist in England, setting out to create his own experiment, Dr. Richard Lord proved this theory.
    D. To prove this theory, Dr. Richard Lord, a scientist in England, set out to create his own experiment.

members reported feeling uneasy, chilly, and frightened during the times when the sound waves were used. **(12) The audience could not hear the sound waves and were not fully aware of their presence, they could subconsciously feel that something in the room was different**. Dr. Lord and his team concluded that the reason people suddenly feel frightened may have more to do with the presence of sound waves more so than the **(13) presence of ghosts perhaps places** believed to be "haunted" simply have more undetectable waves, magnetic pulls, or temperature changes. However, the results of this study and those like it only suggest an alternative to **(14) the presence of ghosts. But do** not dismiss their existence entirely.

(15) While scientific evidence supporting the existence of ghosts may be weak, polls show that approximately one-third of Americans believe that ghosts exist. In addition to watching the search for the paranormal on their televisions, those interested in the supernatural can embark on ghost tours offered in cities nationwide. Some tours allow participants to not only visit haunted places, but to use equipment similar to that used by professional ghost hunters. Even people who are a bit skeptical can find these tours to be at the very least amusing and perhaps spookier than they anticipated.

12. The sentence can be corrected by all of the following EXCEPT:

F. Adding the word *Although* to the beginning of the sentence (lowercasing *the*)
G. removing the comma after *presence*
H. inserting the conjunction *but* after the word *presence* (leaving the comma in place)
J. replacing the comma after *presence* with a semicolon, then adding the word *however,*

13.

A. NO CHANGE
B. presence of ghosts; perhaps places
C. presence of ghosts, perhaps. Places
D. presence of ghosts, perhaps places

14.

F. NO CHANGE
G. the presence of ghosts; but do
H. the presence. Ghosts do
J. the presence of ghosts but do

15. All of the following changes to the underlined portion are acceptable EXCEPT:

A. Scientific evidence supporting the existence of ghosts may be weak, but polls show
B. Though scientific evidence supporting the existence of ghosts may be weak, polls show
C. Though scientific evidence supporting the existence of ghosts may be weak, but polls show
D. Scientific evidence supporting the existence of ghosts may be weak; however, polls show

SUMMER ASSIGNMENT 1 of 2
GRADE 11: Reading Comprehension

NAME: _____

Read the passage and choose the most precise answer. **ANNOTATE** where you find each answer.

With reality shows and competitions filling up the airwaves, it seems nowadays virtually anyone has a shot at "15 minutes of fame." Seeing the meteoric rise of *American Idol* winners like Kelly Clarkson and Carrie Underwood and *X Factor* contestants One Direction, some viewers see reality TV as their path towards a life of glitz and glamour.

But how profitable is it to appear on one of these shows? Sure, being a winner can be lucrative: The winner of *Survivor* takes home $1 million, with the runner-up receiving $100,000. Likewise, *America's Got Talent* offers a million dollar top prize as well; however, the money is distributed via a 40-year annuity, which, after taxes, amounts to about $25,000 in cash per year.

Being a mere contestant, meanwhile, is hardly profitable. In most cases, contestants receive a small living stipend, comparable to minimum wage. Contestants on shows like *The Bachelor* and *Survivor* are not paid (though they do enjoy a free vacation in a luxurious mansion or on an exotic island). Many contestants on these shows are college students, unemployed, self-employed, or work a variety of odd jobs; for many people employed in steady, well-paying careers, they simply cannot afford to take weeks off from their jobs to film.

Most reality show "stars" go back to their regular day jobs and normal lives after filming has ceased. While some may land endorsement deals or other TV gigs, not all fame is positive—depending on how a contestant is portrayed on the show, he or she may actually find difficult job prospects upon reentering the real world.

1. What does the author suggest about appearing on a reality TV show?

A) It is a surefire path to lasting stardom.
B) It's a good career path for someone without a college degree.
C) It's a waste of time.
D) It can be a fun experience, but usually isn't lucrative.

2. What choice provides the best evidence for the answer to the previous question?

A) Lines 2-3 ("it seems…of fame.'")
B) Lines 10-12 ("Sure, being…receiving $100,000.")
C) Lines 18-24 ("Being a…exotic island].")
D) Lines 24-26 ("Many contestants…odd jobs;")

3. What does the author suggest about the majority of reality show contestants?

A) They land endorsement deals later.
B) Their reputations will be ruined.
C) They had lower-paying jobs or unsteady careers.
D) They are likely to become rich.

4. What choice provides the best evidence for the answer to the previous question?

A) Lines 6-8 ("some viewers…glitz and glamour.")
B) Lines 24-29 ("Many contestants…to film.")
C) Lines 30-32 ("Most reality…has ceased.")
D) Lines 34-37 ("depending on…real world.")

Name:_____

Incoming 11th graders	
Topic 1: Polynomial Operations and Complex Numbers	
Example 1: Combine the like terms to create an equivalent expression. $-5x+4y+(-9x)-15y$ $-14x-11y$	Example 2: Combine the like terms to create an equivalent expression $17x+19+(-6)-(-2x)$ $17x+19+(-6)+2x$ $19x+13$
1. Combine the like terms to create and equivalent expression: $-4p+8m+(-6p)-14m$	2. Combine the like terms to create and equivalent expression: $8n+12+(-9)-(-6n)$
Example 3: Expand. Write your answer in standard form. $(x-5)(x-3)$ $x^2-3x-5x+15$ $x^2-8x+15$	Example 4: Expand. Write your answer in standard form. $(x+9)(x-4)$ $x^2-4x+9x-36$ $x^2+5x-36$
3. Expand. Write your answer in standard form. $(x-2)(x-1)$	4. Expand. Write your answer in standard form. $(x+5)(x-3)$

Name:_____

Example 5: Factor the Quadratic expression completely.

$5x^2+14x+8$

$x^2+14x+40$ MUH 40 add 14

$(x+\frac{10}{5})(x+\frac{4}{5})$

$\boxed{(x+2)(5x+4)}$

5. Factor the Quadratic expression completely.

$-3x^2+17x-20$

Example 6: Factor as a product of binomials.

x^2-81

$\boxed{(x-9)(x+9)}$

6. Factor as a product of binomials

x^2-64

Topic 2: Solving Equations

Example 7 Solve for m.

$-2m+3+6m=10-7m$

$4m+3=10-7m$

$+7m \quad +7m$

$11m+3=10$

$-3 \quad -3$

$\frac{11m}{11}=\frac{7}{11}$

$\boxed{m=\frac{7}{11}}$

Example 8 Solve for m.

$4(7-2m)-9=4m-12$

$28-8m-9=4m-12$

$19-8m=4m-12$

$-4m \quad -4m$

$19-12m=-12$

$-19 \quad -19$

$-12m=-31$

$\frac{-12m}{-12}=\frac{-31}{-12}$

$\boxed{m=\frac{31}{12}}$

7. Solve for f.

$-f+2+4f=8-3f$

8. Solve for f

$3(6-f)-4=3f-4$

Example 9: Solve the system of equations by substitution. $5x+2y=5$

$y=3x+8$

$5x+2(3x+8)=5$

$5x+6x+16=5$

$11x+16=5$

$-16 \quad -16$

$\frac{11x}{11}=\frac{-11}{11}$

$x=-1$

$y=3x+8$

$y=3(-1)+8$

$y=-3+8$

$y=5$

$\boxed{(-1,5)}$

Example 10: Solve the system of equations by elimination. $2x+3y=15$

$x-3y=3$

$3x=18$

$\frac{3x}{3}=\frac{18}{3}$

$x=6$

$x-3y=3$

$6-3y=3$

$-6 \quad -6$

$\frac{-3y}{-3}=\frac{-3}{-3}$

$y=1$

$\boxed{(6,1)}$

Name:_____

9. Solve the System of equations by substitution

$$5x - 7y = 58$$
$$y = -x + 2$$

10. Solve the system of equations by elimination.

$$-3x + 2y = 56$$
$$-5x - 2y = 24$$

Example 11 Find the zeros of the function.

$f(x) = (x-6)^2 - 25$

$0 = (x-6)^2 - 25$

$+25 \quad +25$

$\sqrt{25} = \sqrt{(x-6)^2}$

$\pm 5 = x - 6$

$5 = x - 6 \quad -5 = x - 6$

$11 = x \quad 1 = x$

$X = \{1, 11\}$

Example 12 Solve for X.

$2x^2 - 8 = 64$

$+8 \quad +8$

$\frac{2x^2}{2} = \frac{72}{2}$

$\sqrt{x^2} = \sqrt{36}$

$X = \pm 6$

11. Find the zeros of the function.

$f(x) = (x - 10)^2 - 49$

12. Solve for x.

$3x^2 - 7 = 5$

Example 13:

Solve for X.

$x^2 - 3x - 10 = 0$ Mult -10, Add -3

$(x-5)(x+2) = 0$

$x-5=0 \quad x+2=0$

$+5 \quad +5 \quad -2 \quad -2$

$X = 5 \quad X = -2$

$X = \{-2, 5\}$

Example 14:

Solve for X.

$0 = x^2 - 9x + 20$ Mult 20, Add -9

$0 = (x-4)(x-5)$

$x-4=0 \quad x-5=0$

$+4 \quad +4 \quad +5 \quad +5$

$X = 4 \quad X = 5$

$X = \{4, 5\}$

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13. Solve for x.

$$x^2 - x - 12 = 0$$

14. Solve for x

$$x^2 - 4x + 3 = 0$$

Example 15

Solve using the quadratic formula

$4 = -3x + 2x^2$ $a=2$ $b=-3$ $c=-4$

$0 = 2x^2 - 3x - 4$

$x = \frac{-(-3) \pm \sqrt{(-3)^2 - 4(2)(-4)}}{2(2)}$

$x = \frac{3 \pm \sqrt{9+32}}{4}$

$x = \frac{3 \pm \sqrt{41}}{4}$

Example 16

Solve using the quadratic formula

$x^2 - 7x - 3 = 0$ $a=1$ $b=-7$ $c=-3$

$x = \frac{-(-7) \pm \sqrt{(-7)^2 - 4(1)(-3)}}{2(1)}$

$x = \frac{7 \pm \sqrt{49+12}}{2}$

$x = \frac{7 \pm \sqrt{61}}{2}$

15. Solve using the quadratic formula

$$10 = -4x + 3x^2$$

16. Solve using the quadratic formula.

$$7x^2 + x - 4 = 0$$

Example 17

What is the slope of the line that passes through the points $(7,0)$ and $(14,0)$

x_1, y_1 x_2, y_2

$m = \frac{y_2 - y_1}{x_2 - x_1}$

$m = \frac{0-0}{14-7}$

$m = \frac{0}{7}$

$m = 0$

Example 18

What is the slope of the line that passes through the points $(5,4)$ and $(-2,-8)$

x_1, y_1 x_2, y_2

$m = \frac{-8-4}{-2-5}$

$m = \frac{-12}{-7}$

$m = \frac{12}{7}$

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Topic 3: Equations of Lines

17. What is the slope of the line that passes through the points (5, 0) and (10, 0)?

18. What is the slope of the line that passes through the points (3, 2) and (-1, -4)? Write your answer as a fraction in simplest form.

Example 19

Write the equation of the line passing through the point (3, -2) with a slope of 4.

$y - y_1 = m(x - x_1)$

$y - -2 = 4(x - 3)$

$y + 2 = 4(x - 3)$

$y + 2 = 4x - 12$

$\boxed{y = 4x - 14}$

Example 20 Write the equation of the line passing through the points (-2, -5) and (9, -8)

$m = \frac{-8 - -5}{9 - -2}$

$m = \frac{-3}{11}$

$y - y_1 = m(x - x_1)$

$y - -5 = \frac{-3}{11}(x - -2)$

$\boxed{y + 5 = \frac{-3}{11}(x + 2)}$

19. Write the equation of the line passing through the point (2, -1) with a slope of -3.

20. Write the equation of the line passing through the points (-4, -7) and (8, -13)

Topic 4: Polynomials and Exponent Rules

Example 21 Simplify using exponent rules

$(-6xy^8)(-3x^3y^7)$

$\boxed{18x^4y^{15}}$

Example 22

Simplify using exponent rules

$\frac{-21x^{12}y^{13}}{3x^5y^6} = \boxed{-7x^7y^7}$

21. Simplify using exponent rules $(-2ab^3)(-3a^2b^5)$?

22. Simplify using exponent rules $\frac{-12a^3b^2}{6ab^2}$

Name:_____

Example 23 Simplify using exponent rules $3x^4y^2(2x^3y - 4xy^7)$ $6x^7y^3 - 12x^5y^9$	Example 24 Simplify using exponent rules $\frac{9x^{15} - 27x^9 + 3x^5}{3x^5} = 3x^{10} - 9x^4 + 1$
23. Simplify using exponent rules $2x^3y(x^2y - 3xy^2)$?	24. Simplify using exponent Rules $\frac{10x^{12} - 2x^8 + 2x^4}{2x^4}$?
Topic 5: Radical Equations	
Example 25 Write answer in simplest radical form. $\sqrt[3]{108x^{18}y^4}$ $\sqrt[3]{27 \cdot 4x^{18}y^4}$ $3x^6y\sqrt[3]{4y}$	Example 26 Write answer in simplest radical form. $(2\sqrt{11} + 4)(4\sqrt{11} - 3)$ $8(11) - 6\sqrt{11} + 16\sqrt{11} - 12$ $88 + 10\sqrt{11} - 12$ $10\sqrt{11} + 76$
25. Write answer in simplest radical form. $\sqrt[3]{256a^{15}b^2}$	26. Write answer in simplest radical form. $(4\sqrt{7} + 3)(6\sqrt{7} - 1)$

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Example 27

Write answer in simplest radical form.

$$\frac{3}{\sqrt{28}} \cdot \frac{\sqrt{28}}{\sqrt{28}} = \frac{3\sqrt{28}}{28}$$

$$= \frac{3\sqrt{4 \cdot 7}}{28}$$

$$= \frac{3(2)\sqrt{7}}{28}$$

$$= \frac{6\sqrt{7}}{28} = \boxed{\frac{3\sqrt{7}}{14}}$$

Example 28

Write answer in simplest radical form.

$$\frac{4(2-\sqrt{7})}{2+\sqrt{7}(2-\sqrt{7})}$$

$$= \frac{8-4\sqrt{7}}{4-2\sqrt{7}+2\sqrt{7}-7}$$

$$= \boxed{\frac{8-4\sqrt{7}}{-3}}$$

27. Write answer in simplest radical form.

$$\frac{2}{\sqrt{12}}$$

28. Write answer in simplest radical form.

$$\frac{6}{4+\sqrt{5}}$$

Example 29

Solve the equation and check.

$$2\sqrt{3x+2} + 1 = 11$$
$$-1 \quad -1$$
$$\frac{2\sqrt{3x+2}}{2} = \frac{10}{2}$$
$$(\sqrt{3x+2})^2 = (5)^2$$
$$3x+2 = 25$$
$$3x = 23$$
$$x = 23/3$$

Ck

$$2\sqrt{3(\tfrac{23}{3})+2} + 1 = 11$$
$$2\sqrt{25} + 1 = 11$$
$$11 = 11 \checkmark$$

$$\boxed{x = 23/3}$$

Example 30

Solve the equation and check.

$$\sqrt{x-3} + 6 = 8$$
$$-6 \quad -6$$
$$(\sqrt{x-3})^2 = (2)^2$$
$$x-3 = 4$$
$$+3 \quad +3$$
$$\boxed{x = 7}$$

Ck

$$\sqrt{x-3} + 6 = 8$$
$$\sqrt{7-3} + 6 = 8$$
$$\sqrt{4} + 6 = 8$$
$$2 + 6 = 8$$
$$8 = 8 \checkmark$$

29. Solve the equation and check for extraneous solutions.

$$-2\sqrt{6x+3} = -18$$

30. Solve the equation and check or extraneous solutions.

$$\sqrt{m-7} + 18 = 12$$

Chemistry Summer Assignment

SMA-CPT Gary Barnes
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1. Assume you are the editor of your school newspaper and you have been asked to write an article about the life and times of a famous chemist. Pick a chemist from the list below and write a one page summary of your chosen individual in the style of a newspaper article. Include details such as the person's early life (where they were born, went to university etc), what they are most famous for and why. You will be expected to provide a 5 minute feedback to the class on your chosen scientist.

Neils Bohr	Gilbert Lewis	Antoine Lavoisier
Robert Boyle	Svante Arrhenius	Rosalind Franklin
Dimitri Mendeleev	Henry Moseley	Frank Sanger
Ernest Rutherford	Amedeo Avogadro	Linus Pauling

2. Express the following numbers in scientific notation

a. 460.0097
b. 0.00987
c. 46,926,000
d. 0.000000094
e. 212.04

3. How many significant figures are there in each of the following numbers?

a. 12.3456
b. 2.000
c. 171,000
d. 0.00038
e. 5.0019

4. Explain (in complete sentences) what is meant by the SI units of measure. Give examples for length, temperature, time, and mass.

5. Write a short description (2-3 sentences) of each of the following:

a. The Periodic Table
b. An Element
c. An Atom

Social Studies

World Maps

Directions:

Map of the United States

On the unlabeled map of the United States, label all of the states and capitals, and all of the following waterways: Atlantic Ocean, Bering Sea, Chesapeake Bay, Great Salt Lake, Gulf of Mexico, Lake Erie, Lake Huron, Lake Michigan, Lake Ontario, Lake Superior, Mississippi River, Missouri River, Pacific Ocean, Rio Grande River, and San Francisco Bay.

Label the original 13 colonies.

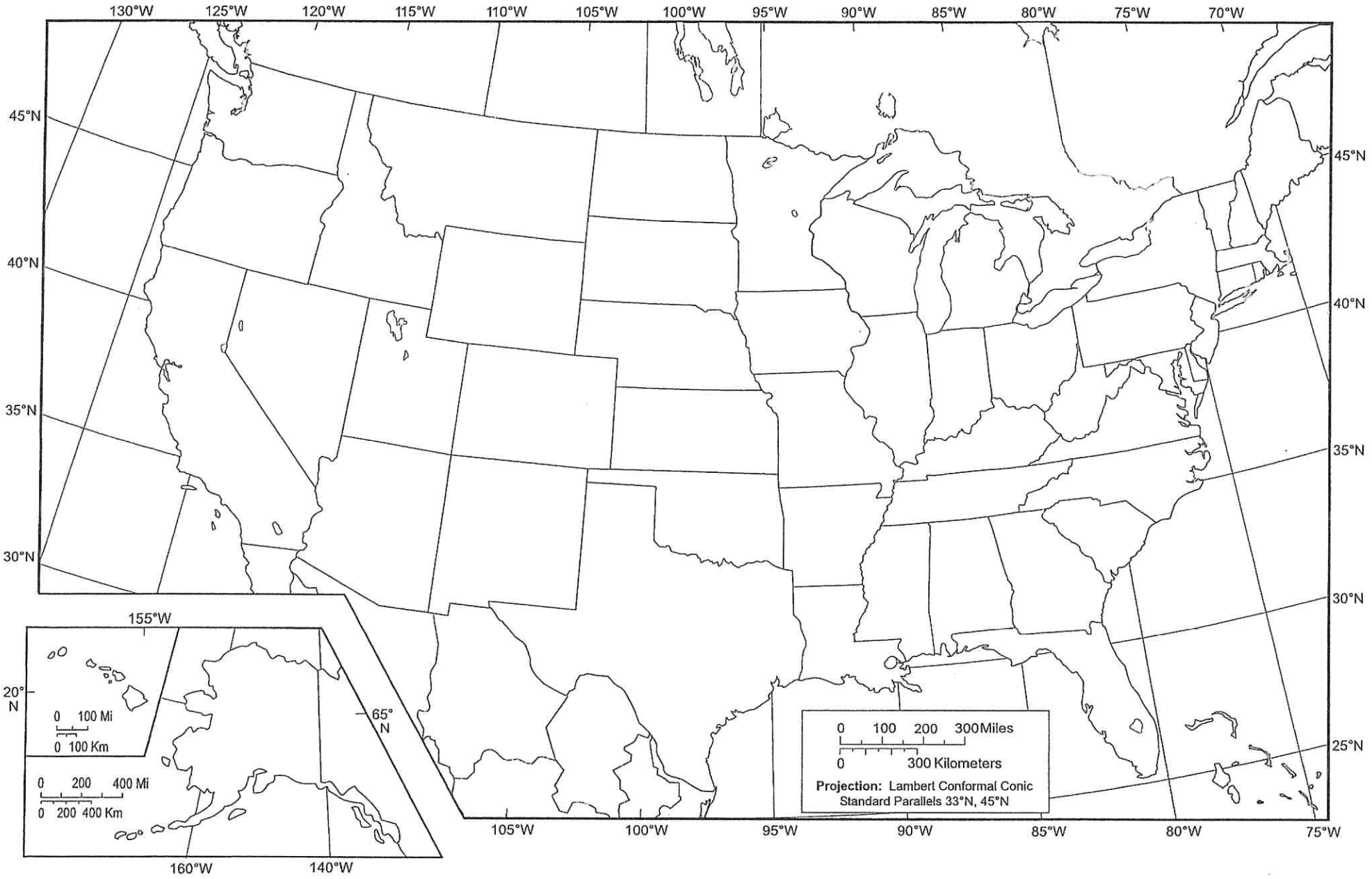
Map of Europe

On the unlabeled map of Europe, label each country (don't leave any out) and all of the following waterways: Adriatic Sea, Aegean Sea, Baltic Sea, Barents Sea, Bay of Biscay, Black Sea, Celtic Sea, English Channel, Ionian Sea, Ligurian Sea, Mediterranean Sea, North Sea, Norwegian Sea, Sea of Crete, Strait of Gibraltar, Tyrrhenian Sea, and the White Sea.

Continents

On the blank sheet provided, neatly and as accurately as possible, draw and label a map of the world which includes all seven continents, along with the Arctic Ocean, Atlantic Ocean, Indian Ocean, Pacific Ocean, and Southern Ocean.

The United States

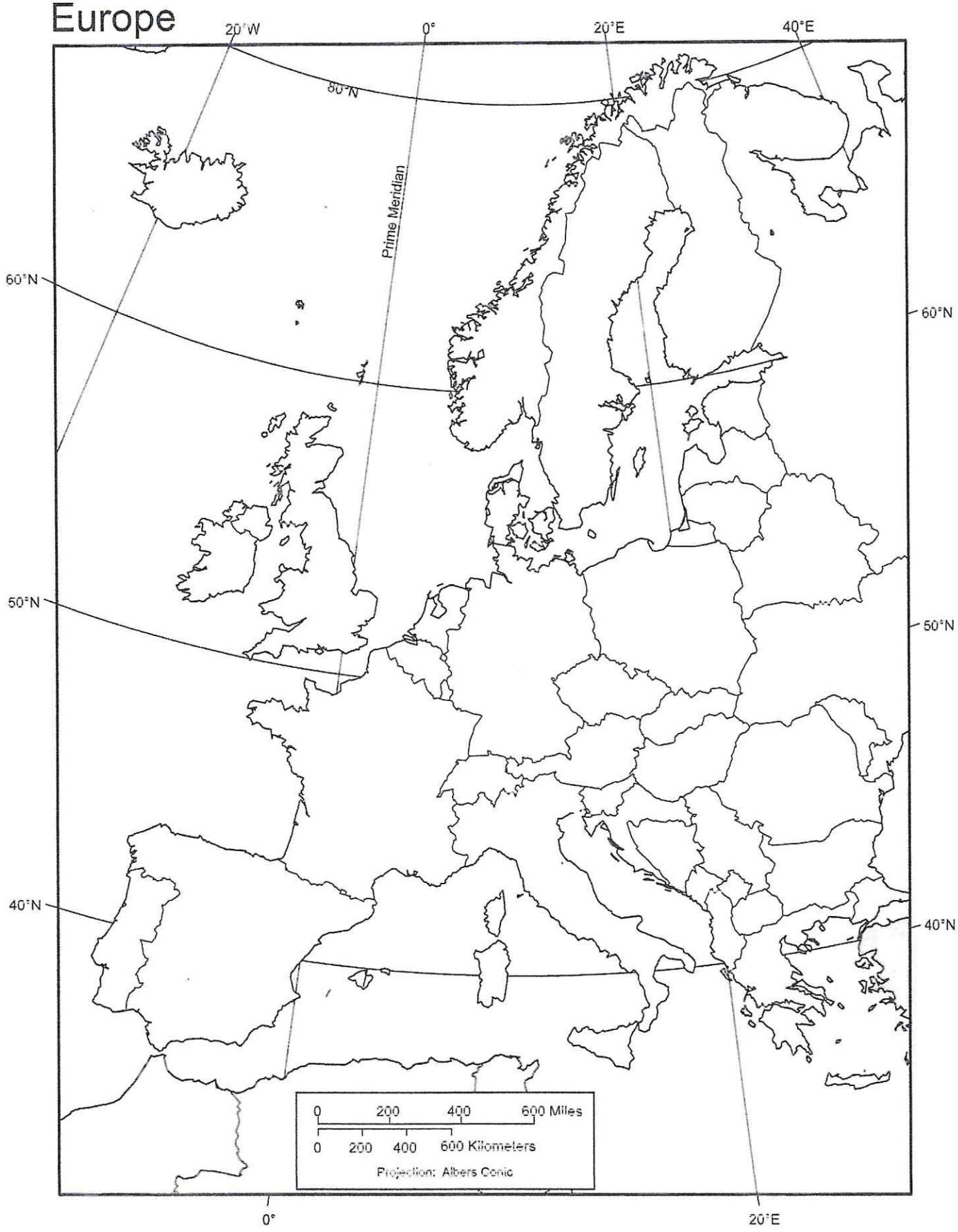


ARIZONA GEOGRAPHIC ALLIANCE

Courtesy: Arizona Geographic Alliance **http://geoalliance.asu.edu/azga**
School of Geographical Sciences and Urban Planning
Arizona State University
Cartographer Barbara Trapido-Lurie

US.PDF

Europe



ARIZONA GEOGRAPHIC ALLIANCE

Courtesy: Arizona Geographic Alliance **http://geoalliance.asu.edu/azga**
School of Geographical Sciences and Urban Planning
Arizona State University
Cartographer Terry Dorschied
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Map of the World