Name_____ Date_____ Class _____

CHAPTER 1

TAKS TEST PREPARATION FOR MATH IN SCIENCE

Math Mini-Test TEKS

Section 1

1

Day	Speed (km/h)
1	20
2	22
3	38
4	85
5	24

A meteorologist recorded the speed of the wind over the course of several days. Which answer is closest to the average wind speed?

A 20 km/h
B 24 km/h
C 38 km/h
D 189 km/h

2 On some days the weather was calm, but on one day there was a bad storm. Which answer places the days in order of wind speed from slowest to fastest?

F 1, 2, 3, 4, 5
G 4, 3, 5, 2, 1
H 1, 2, 5, 3, 4
J 1, 2, 5, 4, 3

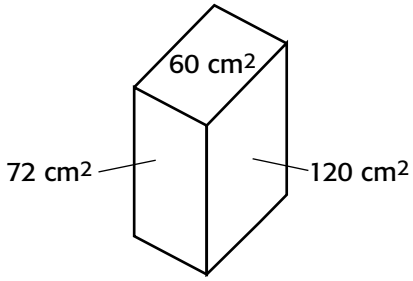
3 Marvin's Taxi Service charges \$0.30 for the first kilometer and \$0.05 for each additional kilometer. If the fare was \$3.20, how long was the trip?

A 59 km
B 11 km
C 64 km
D 58 km

4 Sarah observed that there are 4 people in her grade that are left-handed. If there are 36 students in her grade, which answer gives the ratio of left-handed students to right-handed students as a fraction?

F $\frac{1}{9}$
G $\frac{8}{9}$
H $\frac{8}{1}$
J $\frac{1}{8}$

5 The area of one side of the box is 120 cm^2. The area of another side of the box is 72 cm^2. The area of the top of the box is 60 cm^2. What is the volume of the box?



A 360 cm^3
B 720 cm^3
C 504 cm^3
D 518,400 cm^3

STOP

Name_____ Date_____ Class _____

CHAPTER 1 TAKS TEST PREPARATION FOR MATH IN SCIENCE

Math Mini-Test TEKS

Section 2

1 The original design for a boat shows a rectangular shape that is 5 m long and 1.5 m wide. If the design is reduced to 3.4 m long and 50 cm wide, by how much does the area of the boat decrease?

A 1.7 m^2

B 5.8 m^2

C 7.5 m^2

D 9.2 m^2

2 A penguin swims at 35 km/h. About how many ***meters*** does it swim in 10 ***minutes***?

F 3.5 m

G 350 m

H 583 m

J 5833 m

3 Machine A is 34% efficient. Machine B is 82% efficient. How much more efficient is machine B than machine A?

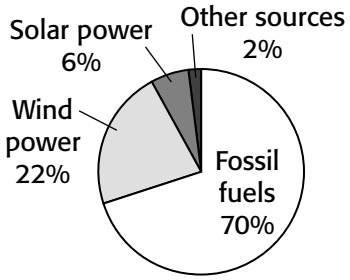
A 14%

B 34%

C 48%

D 116%

4 John presented the results of his research in the circle graph below. According to his graph, what portion of the county's energy comes from wind and solar power?



F 8%

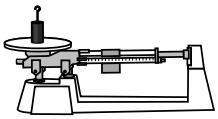
G 28%

H 30%

J 92%

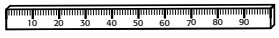
5 What tool would you need to measure the force needed to pull an object?

A

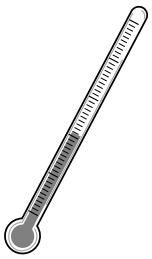


B

C



D



STOP

Name_____ Date_____ Class _____

CHAPTER 1

TAKS TEST PREPARATION FOR MATH IN SCIENCE

Math Mini-Test TEKS

Section 3

1 In a model, 1 cm represents 5 km. If two points on the model are 10.2 cm apart, how far apart are the real points they represent?

A 2.04 cm
B 2.04 km
C 51 cm
D 51 km

2 During a chemical change two separate pieces of matter combined into one. The mass of the final product is 82 g. The masses of the original pieces must equal the final product's mass. Which answer shows the possible masses of the original pieces of matter?

F 12 g and 8 g
G 2 g and 18 g
H 42 g and 40 g
J 2 g and 41 g

3 Three shapes—a circle, a rectangle, and a square—have the same area. Which shape has the smallest perimeter?

A Circle
B Rectangle
C Square
D They all have the same perimeter.

4

Galveston Temperatures

Mon	Tue	Wed	Thu	Fri
32°C	28°C	25°C	27°C	30°C

What is the range of the temperatures in the table above?

F 2°C
G 5°C
H 7°C
J 28°C

5 Which answer is closest to the average of the temperatures?

A 25°C
B 28°C
C 32°C
D 142°C

6 Which polygon must contain a 60° angle?

F a right triangle
G a scalene triangle
H an isosceles triangle
J an equilateral triangle

STOP

Name_____ Date_____ Class _____

CHAPTER 1

TAKS TEST PREPARATION FOR MATH IN SCIENCE

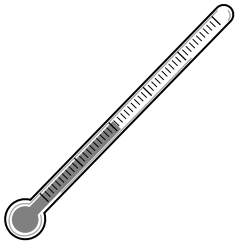
Math Mini-Test TEKS

Section 4

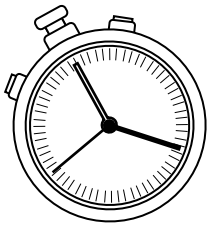
1 Which tool should a scientist use to record the length of time it takes for a chemical change to occur?

A

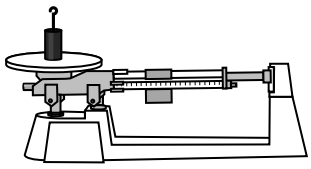
B



C



D



2 A nanometer is 0.000000001 m. Which answer expresses this number in scientific notation?

F 1×10^{-7}

G 1×10^{7}

H 1×10^{-9}

J 1×10^{9}

3 A poster has a length of 80 cm and an area of 3200 cm^2. What is its width?

A 40 cm

B 240 cm

C 400 cm

D 3280 cm

4 If $density = \frac{mass}{volume}$, what is the density of an object that has a mass of 50 g and a volume of 2.6 cm^3?

F 0.052 cm^3/g

G 19.2 g/cm^3

H 47.4 g/cm^3

J 130 g/cm^3

STOP

Name_____ Date_____ Class _____

CHAPTER 1

TAKS TEST PREPARATION FOR READING IN SCIENCE

Reading Mini-Test TEKS

Section 1

Read the passage. Then read each question that follows the passage. Decide which is the best answer to each question.

A meteorologist is a person who studies the atmosphere. One of the most common careers meteorologists have is weather forecasting. But some meteorologists, such as Howard Bluestein, chase tornadoes! Bluestein predicts where tornadoes are likely to form and then drives to within a couple of kilometers of the site to gather data. By gathering data this way, scientists like Bluestein hope to understand tornadoes better. The more scientists understand about tornadoes, the better they can predict how these violent storms will behave. The ability to make better predictions will allow scientists to give earlier warnings of storms and to help reduce injuries and deaths.

1 According to the information in the passage, why do meteorologists such as Bluestein study tornadoes?

- **A** To learn how to stop tornadoes from forming
- **B** To predict how tornadoes will behave
- **C** To travel to the places where tornadoes form
- **D** To study the layers of the atmosphere

2 Someone who forecasts the weather is

- **F** controlling it.
- **G** deciding it.
- **H** changing it.
- **J** predicting it.

3 Which of the following conclusions can be supported by the information given in the passage?

- **A** Tornadoes are relatively easy to predict.
- **B** Bluestein has been studying tornadoes for over fifty years.
- **C** Bluestein's work could help to reduce injuries and deaths.
- **D** Very few meteorologists forecast the weather.

4 Which statement is the best summary of the passage?

- **F** Some meteorologists study tornadoes in order to predict their behavior and give earlier warnings.
- **G** Meteorologists study the atmosphere.
- **H** In order to gather data, Bluestein drives to a few kilometers from the site where a tornado might occur.
- **J** Most weather forecasters have a degree in meteorology.

STOP

Name_____ Date_____ Class _____

CHAPTER 1

TAKS TEST PREPARATION FOR READING IN SCIENCE

Reading Mini-Test TEKS

Section 2

Read the passage. Then read each question that follows the passage. Decide which is the best answer to each question.

> At the end of an investigation, you must draw a conclusion. You could conclude that your results support your hypothesis. Or you could conclude that your results do not support your hypothesis. Or you might even conclude that you need more information. Your conclusion can help guide what you do next. You could ask new questions or gather more information. You could change the procedure or check your calculations for errors. Or you could do another investigation.

1 Use the information in the passage above to infer which of these steps happens first.

- **A** You form a hypothesis.
- **B** You decide whether the results support a hypothesis.
- **C** You conclude that you need to check your calculations for errors.
- **D** You change the procedure.

2 What is the main idea of this passage?

- **F** A procedure may need to be changed.
- **G** A conclusion helps you finish an investigation and can guide your next steps.
- **H** A good hypothesis must be testable.
- **J** New questions can help you gather more information, or they can lead you to another investigation.

3 The purpose of this passage is to

- **A** explain the function of the conclusion in the scientific process.
- **B** convince the reader not to follow the scientific process.
- **C** show the reader how to check calculations for errors.
- **D** describe the process of gathering information.

4 Which of these is NOT a type of scientific conclusion?

- **F** Your results support your hypothesis.
- **G** Your results do not support your hypothesis.
- **H** More information is needed to determine if the hypothesis is supported.
- **J** You form a hypothesis.

Name_____ Date_____ Class _____

CHAPTER 1

TAKS TEST PREPARATION FOR READING IN SCIENCE

Reading Mini-Test TEKS

Section 3

Read the passage. Then read each question that follows the passage. Decide which is the best answer to each question.

Every day, people try to predict the weather. One way they predict the weather is to use mathematical models. A mathematical model is made up of mathematical equations and data. Some mathematical models are simple. These models allow you to calculate things such as forces and acceleration. Others are so complex that only computers can handle them. Some of these very complex models have many variables. Using the most correct data does not make the prediction correct. A change in a variable that was not thought of could cause the model to fail.

1 In this passage, a variable is

A a factor in the model that may change.

B a computer model.

C a prediction that uses computer models.

D a kind of mathematics.

2 Which of these is the best summary of the passage?

F Mathematics has allowed scientists to make great strides in technology.

G Forces and acceleration can be predicted using complex mathematical models, while the weather can be predicted using a simple model.

H People predict the weather every day.

J Simple and complex mathematical models can be used in many ways, including weather prediction, and can depend on a wide number of variables.

3 Which is a valid conclusion based on the information this passage?

A Mathematical models are not the only method people use to predict the weather.

B Weather predictions are always correct.

C Models that use correct data always predict the weather.

D All mathematical models require computers.

4 Which of these could probably NOT be calculated with a simple mathematical model?

F The force on a pulley

G The movement of a thunderstorm over the next four days

H The acceleration of a falling stone

J The force on a lever

STOP

Name_____ Date_____ Class _____

CHAPTER 1 TAKS TEST PREPARATION FOR READING IN SCIENCE

Reading Mini-Test TEKS

Section 4

Read the passage. Then read each question that follows the passage. Decide which is the best answer to each question.

In time, people saw that they needed a simple and reliable measurement system. In the late 1700s, the French Academy of Sciences set out to make that system. Over the next 200 years, the metric system was formed. This system is now called the International System of Units (SI).

Today, most scientists and almost all countries use the International System of Units. One advantage of using SI measurements is that they help all scientists share and compare observations and results. Another advantage of SI is that all units are based on the number 10. This makes changing from one unit to another easier.

1 Which of the following is an OPINION from the passage?

- **A** SI stands for the International System of Units.
- **B** Changing from one SI unit to another is easier than converting units in other systems.
- **C** Most scientists use SI.
- **D** The SI system was created by the French Academy of Science.

2 According to the passage, why is it easier to change units in the SI system?

- **F** The SI system is used by most countries.
- **G** Almost all scientists use the SI system.
- **H** The SI system units are all based on the number 10.
- **J** The SI system is reliable.

3 How might the SI system help scientists around the world share results?

- **A** Scientists of different countries who use the SI system do not have to convert their data from one measurement system to another.
- **B** The SI system is based on the metric system of measurement.
- **C** Scientists know that the SI system was created by other scientists at the French Academy of Sciences.
- **D** Scientists believe in the SI system because it has been around for 200 years.

4 The author probably wrote this passage to

- **F** convince readers that the SI system should not be used in the U.S.
- **G** describe the differences between the SI system and the metric system.
- **H** explain the history and current uses of the SI system.
- **J** show how the SI system has affected the U.S.

STOP

CHAPTER 1 TAKS TEST PREPARATION FOR MATH IN SCIENCE

Answer Key and TAKS Doctor for Mini-Tests

Section 1

Answers	TEKS Correlation	TAKS Objectives
1 C	M 8.12A	5
2 H	M 8.1A	1
3 D	M 8.2A	1
4 J	M 8.3B	2
5 B	M 8.8C	4

The following TAKS questions have been diagnosed by the TAKS Doctor. Find out what might be causing your "ailing" answers. The TAKS Doctor will see you now!

Item 4 *asks students to find the ratio of left-handed students to right-handed students as a fraction given that there are 4 left-handed students in a class of 36.*

F **Incorrect.** This answer is the ratio of left-handed students, 4, to the total number of students in the class, 36, expressed as a fraction. It is not the ratio of left-handed students to right-handed students expressed as a fraction.

G **Incorrect.** This answer is the ratio of right-handed students, 32, to the total number of students in the class, 36, expressed as a fraction. It is not the ratio of left-handed students to right-handed students expressed as a fraction.

H **Incorrect.** This answer is the ratio of right-handed students, 32, to left-handed students, 4, expressed as a fraction. The correct answer is therefore the reciprocal of this fraction.

J **Correct.** There are 4 left-handed students and 36 – 4 = 32 right-handed students in the class. The ratio of left- to right-handed students as a fraction is therefore $\frac{4}{32}$, which reduces to $\frac{1}{8}$.

Item 5 *asks students to find the volume of a box given the areas of the top and sides of the box.*

A **Incorrect.** This answer is the result of correctly finding the height of the box, 12 cm, and the width of the rectangle with an area of 72 cm^2, 6 cm, but incorrectly using the height of the box when solving for the length of the rectangle on top of the box. The result of these calculations ($12x = 60$, $x = 5$) was then multiplied by 12 and 6 to find an incorrect total volume ($V = l \times w \times h$).

B **Correct.** Trial and error reveals that there is only one set of numbers (6 cm, 10 cm, 12 cm) that will produce the indicated areas. 6 cm × 10 cm = 60 cm^2, 10 cm × 12 cm = 120 cm^2, and 6 cm × 12 cm = 72 cm^2. *Volume* = $l \times w \times h$. Therefore 6 cm × 10 cm × 12 cm = 720 cm^3.

C **Incorrect.** This answer is the result of calculating the total surface area of the box instead of the box's volume.
$72\ cm^2 + 72\ cm^2 + 120\ cm^2 + 120\ cm^2 + 60\ cm^2 + 60\ cm^2 = 504\ cm^2$

D **Incorrect.** This answer is the result of multiplying the areas: $60\ cm^2 \times 72\ cm^2 \times 120\ cm^2 = 518{,}400$ cm. This calculation results in area units, not volume units. To solve this problem properly, the lengths of the sides need to be determined from the given areas, and then multiplied together.

Answer Key and TAKS Doctor for Mini-Tests

Section 2

Answers	TEKS Correlation	TAKS Objectives
1 B	M 8.10A	4
2 J	M 8.3B	2
3 C	M 8.2B	1
4 G	M 8.4	
5 B	M 8.14D	

The following TAKS questions have been diagnosed by the TAKS Doctor. Find out what might be causing your "ailing" answers. The TAKS Doctor will see you now!

Item 1 *asks students to calculate the difference in area between two boat designs given the lengths and widths of the designs.*

A **Incorrect.** This answer is the area of the reduced design: $area = l \times w$; $area = 3.4\text{ m} \times .5\text{ m}$; $area = 1.7\text{ m}^2$. However, the problem asks for the difference in the areas of the two designs.

B **Correct.** This answer is found by determining the area of the original design ($area = l \times w$) and then subtracting the area of the reduced design. $5\text{ m} \times 1.5\text{ m} = 7.5\text{ m}^2$; $3.4\text{ m} \times 0.5\text{ m} = 1.7\text{ m}^2$; $7.5\text{ m}^2 - 1.7\text{ m}^2 = 5.8\text{ m}^2$

C **Incorrect.** This is the area of the original design, not the difference between the two designs. $area = l \times w$; $area = 1.5\text{ m} \times 5\text{ m}$; $area = 7.5\text{ m}^2$

D **Incorrect.** This is the area of the original design plus the area of the final design. It is not the difference between them. $7.5\text{ m}^2 + 1.7\text{ m}^2 = 9.2\text{ m}^2$

Item 2 *asks students to calculate the number of meters a penguin swims in 10 minutes if it swims 35 km in 1 hour.*

F **Incorrect.** This answer is found by dividing the speed (35 km/h) by the number of minutes (10 min) and then mislabeling the answer as a meter measurement. The speed must first be converted to m/min and then related to 10 min.

G **Incorrect.** This answer is found by multiplying the speed (35 km/h) by the number of minutes (10 min) and then mislabeling the answer as a meter measurement. The speed must first be converted to m/min and then related to 10 min.

H **Incorrect.** This answer is found by converting km/h to m/min and calculating the number of meters the penguin traveled in 1 minute instead of 10 minutes.

J **Correct.** This answer is found by first converting km/h to m/min and then multiplying the result by 10 to find the distance traveled in 10 minutes.

$\frac{35\text{ km}}{\text{h}} \times \frac{1\text{ h}}{60\text{ min}} \times \frac{1000\text{ m}}{1\text{ km}} = 583.3\text{ m/min}$; $583.3\text{ m/min} \times 10\text{ min} = 5833\text{ m}$

Answer Key and TAKS Doctor for Mini-Tests

Section 3

Answers	TEKS Correlation	TAKS Objectives
1 D	M 8.3B	2
2 H	M 8.2B	1
3 A	M 8.14C	6
4 H	M 8.12A	5
5 B	M 8.12A	5
6 J	M 8.7B	3

The following TAKS questions have been diagnosed by the TAKS Doctor. Find out what might be causing your "ailing" answers. The TAKS Doctor will see you now!

Item 1 *asks students to relate the scale on a model to actual distances.*

A **Incorrect.** This answer is found by dividing the distance on the model (10.2 cm) by the scale (5 km) and then mislabeling the answer as a centimeter measurement, rather than setting up a proportion between the scale and the model. Also, the answer gives the length according to the scale model rather than its real-life equivalent.

B **Incorrect.** This answer is found by dividing the distance on the model (10.2 cm) by the scale (5 km) and then mislabeling the answer as a kilometer measurement, rather than setting up a proportion between the scale and the model.

C **Incorrect.** This answer is found by correctly setting up a proportion between the scale and the model. However, the answer gives the length according to the scale model rather than its real-life equivalent. The answer should be in kilometers, not centimeters.

D **Correct.** This answer is found by setting up a proportion between the scale and the model. $\frac{1\text{ cm}}{5\text{ km}} = \frac{10.2\text{ cm}}{x\text{ km}}$; $x = 51$ km

Item 5 *asks students to find the average of a set of temperatures.*

A **Incorrect.** This number is the lowest temperature in the table, and could not represent the average, which is the sum of the temperatures divided by the number of temperatures on the list.

B **Correct.** The average of a set of temperatures is the sum of the temperatures divided by the number of temperatures in the set ($32°C + 28°C + 25°C + 27°C + 30°C = 142°C$; $\frac{142°C}{5} = 28.4°C$). This average is rounded down to 28°C.

C **Incorrect.** This answer is the highest temperature in the table and could not represent the average.

D **Incorrect.** This answer is the sum of all the temperatures in the table, but the average is found by dividing this sum by the number of temperatures in the table. $142°C \div 5 = 28.4°C$

CHAPTER 1 TAKS TEST PREPARATION FOR MATH IN SCIENCE

Answer Key and TAKS Doctor for Mini-Tests

Section 4

Answers	TEKS Correlation	TAKS Objectives
1 C	M 8.14D	
2 H	M 8.1D	1
3 A	M 8.8C	4
4 G	M 8.2B	1

TAKS Doctor

The following TAKS questions have been diagnosed by the TAKS Doctor. Find out what might be causing your "ailing" answers. The TAKS Doctor will see you now!

Item 2 *asks students to represent the given number in scientific notation.*

F **Incorrect.** This answer would be correct if the number was 0.0000001.

G **Incorrect.** This answer would be correct if the number was 10,000,000.

H **Correct.** This answer is correct because the decimal of this number is 9 places to the left side of the numeral 1. Because the decimal is to the left of numeral 1, the exponent is negative.

J **Incorrect.** This answer is almost correct because the decimal is 9 places away from the numeral 1. However, because the numeral 1 is to the right of the decimal, the exponent should not be positive, it should be negative.

Item 4 *asks students to calculate the density of an object given its mass and volume.*

F **Incorrect.** This answer is found by dividing the volume (2.6 cm^3) by the mass (50 g), and then mislabeling the answer as g/cm^3. Density is equal to mass divided by volume.

G **Correct.** The answer is found by dividing the mass by the volume. $\frac{50\ g}{2.6\ cm^3} = 19.2\ g/cm^3$

H **Incorrect.** This answer is found by subtracting the volume (2.6 cm^3) from the mass (50 g), and then mislabeling the answer as g/cm^3. Density is equal to mass divided by volume.

J **Incorrect.** This answer is found by multiplying the mass (50 g) by the volume (2.6 cm^3), and then mislabeling the answer as g/cm^3. Density is equal to mass divided by volume.

Answer Key and TAKS Doctor for Mini-Tests

Section 1

Answers	TEKS Correlation	TAKS Objectives
1 B	R 8.10E	3
2 J	R 8.6A	
3 C	R 8.10H	4
4 F	R 8.10G	1

TAKS Doctor

The following TAKS questions have been diagnosed by the TAKS Doctor. Find out what might be causing your "ailing" answers. The TAKS Doctor will see you now!

Item 3 *asks students to draw a conclusion based upon the passage.*

A **Incorrect.** The context of the passage implies that tornadoes are difficult to predict. Because tornadoes cause injuries and deaths, it can be assumed that scientists are studying them in order to predict them better.

B **Incorrect.** The passage does not mention the amount of time that Bluestein has spent studying tornadoes, nor does it imply that he has been doing it for a long time.

C **Correct.** As stated in the last sentence, better tornado predictions will lead to earlier warnings and reduced injuries and deaths. A greater understanding of tornadoes can lead to better predictions. Because Bluestein is helping scientists understand tornadoes, his work could help reduce the damage caused by tornadoes.

D **Incorrect.** The second sentence of the passage states that one of the most common careers in meteorology is weather forecasting, which implies that many meteorologists have this career.

Item 4 *asks students to identify the best summary of the passage.*

F **Correct.** This answer is the best summary because it includes the main ideas of the passage.

G **Incorrect.** Although this is the definition of a meteorologist given in the first sentence, it is not a summary of the passage.

H **Incorrect.** This is a detail about how Bluestein studies tornadoes, but it is not broad enough to summarize the entire passage.

J **Incorrect.** This information is not stated in the passage and does not summarize the information in passage.

Answer Key and TAKS Doctor for Mini-Tests

Section 2

Answers	TEKS Correlation	TAKS Objectives
1 A	R 8.10H	4
2 G	R 8.10F	1
3 A	R 8.12A	3
4 J	R 8.10H	4

TAKS Doctor

The following TAKS questions have been diagnosed by the TAKS Doctor. Find out what might be causing your "ailing" answers. The TAKS Doctor will see you now!

Item 1 *asks students to determine which step happens first.*

A **Correct.** According to the first sentence, a conclusion is drawn at the end of an investigation. The next two sentences indicate that by this point, a hypothesis has already been formed.

B **Incorrect.** A hypothesis must be formed before it can be determined if the results support it.

C **Incorrect.** As stated in the passage, checking the calculations for errors is a step that might be performed after a conclusion is reached, which follows the formation of a hypothesis.

D **Incorrect.** According to the passage, a procedure might be changed after a conclusion is reached, which follows the formation of a hypothesis.

Item 2 *asks students to identify the main idea of the passage.*

F **Incorrect.** Although it is implied in the passage that a procedure may need to be changed, that is not the main idea of the passage.

G **Correct.** The passage describes the different steps a conclusion can lead to, so this is the main idea of the passage.

H **Incorrect.** This information is true, but is not mentioned explicitly in the passage and is not the main idea of the passage.

J **Incorrect.** The author states in the last sentence that another investigation may need to be performed, but this is not the main idea of the passage. It is one option that can follow a scientific conclusion.

Answer Key and TAKS Doctor for Mini-Tests

Section 3

Answers	TEKS Correlation	TAKS Objectives
1 A	R 8.6A	
2 J	R 8.10G	1
3 A	R 8.10H	4
4 G	R 8.10H	4

The following TAKS questions have been diagnosed by the TAKS Doctor. Find out what might be causing your "ailing" answers. The TAKS Doctor will see you now!

Item 1 *asks students to use context to identify the meaning of the word* variable.

A **Correct.** The last three sentences indicate that a variable is a factor in a model that may change.

B **Incorrect.** The third-to-last sentence states that a model can have many variables, not that a model is a variable.

C **Incorrect.** The third-to-last sentence indicates that a variable is a factor in a model, not the prediction generated by the model.

D **Incorrect.** The last sentences of the passage make it clear that a variable is a factor in a model, and not a general type of mathematics.

Item 4 *asks students to determine which of the values could not be calculated with a simple mathematical model.*

F **Incorrect.** The fifth sentence states that a simple mathematical model could be used to calculate a force.

G **Correct.** Of the four answer choices, this is the only value that is not a force or an acceleration. Also, weather is complex and dynamic and could not be predicted with a simple formula.

H **Incorrect.** The fifth sentence states that a simple mathematical model could be used to calculate an acceleration.

J **Incorrect.** According to the fifth sentence, a simple mathematical model could be used to calculate a force.

Answer Key and TAKS Doctor for Mini-Tests

Section 4

Answers	TEKS Correlation	TAKS Objectives
1 B	R 8.10J	4
2 H	R 8.10G	1
3 A	R 8.10H	4
4 H	R 8.12A	3

TAKS Doctor

The following TAKS questions have been diagnosed by the TAKS Doctor. Find out what might be causing your "ailing" answers. The TAKS Doctor will see you now!

Item 3 *asks students to infer how the SI system helps scientists share their results.*

A **Correct.** As stated in the first sentence of the second paragraph, most scientists use the SI system. Using the same measurement system means that scientists do not have to convert their units from one measurement system to another.

B **Incorrect.** Although it is true that the SI system is based on the metric system, this would not help scientists share their results.

C **Incorrect.** Knowing that other scientists created the system does not mean that it would be easier for results to be shared.

D **Incorrect.** The length of time that the system has been in use does not affect the ease with which scientists around the world can share data.

Item 4 *asks students to infer the purpose of the passage.*

F **Incorrect.** The passage makes no explicit claim about whether the system should be used in the U.S., and does not use persuasive language.

G **Incorrect.** The passage does not describe any differences between the metric system and the SI system.

H **Correct.** The first paragraph summarizes the history of the SI system, while the second paragraph explains how the SI system is used today.

J **Incorrect.** The passage does not describe how the SI system has affected the U.S.