MCA Paper Student Readiness Tool

Grade 11 Mathematics

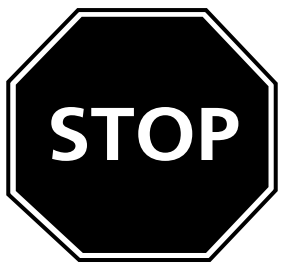
DEPARTMENT OF EDUCATION

18 Point

Symbols on the Test

You will see the following symbols in your test book:

This symbol means you can continue answering questions on the next page.



This symbol means you have finished a segment of the test. You must wait until you are told to go to the next segment.

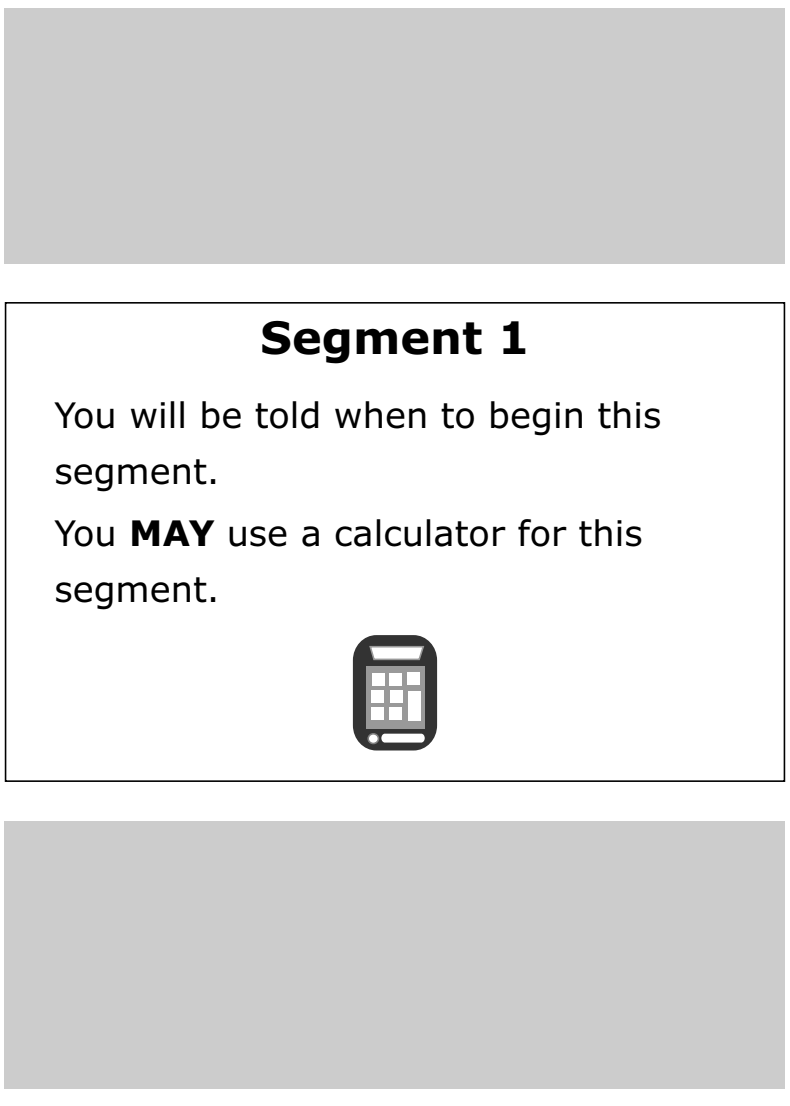
This symbol indicates where to place the sticker given to you by the Test Monitor to seal a finished segment.

Go on to the next page.

Put sticker here

Mathematics Test General Information

- Your test will contain different segments. Segment pages look like this:



- You are allowed to use a calculator for all segments of the test.

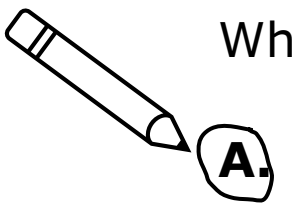
- You can write notes in your test book or on scratch paper, but you must answer each question in the test book.

- Your mathematics test includes multiple-choice and fill-in-the-blank questions.

Go on to the next page.

For multiple-choice questions, circle the answer in your test book. The sample question shows you how to do this.

Sample Question Answered in Test Book:



What is the value of p when $4p + 20 = -320$?

A. –85

B. –75

C. 75

D. 85

Go on to the next page.

Practice

Practice answering this multiple-choice question by circling option C.

1. What is the value of x if $x - 2 = 3 - x$?

A. 1.5

B. 2

C. 2.5

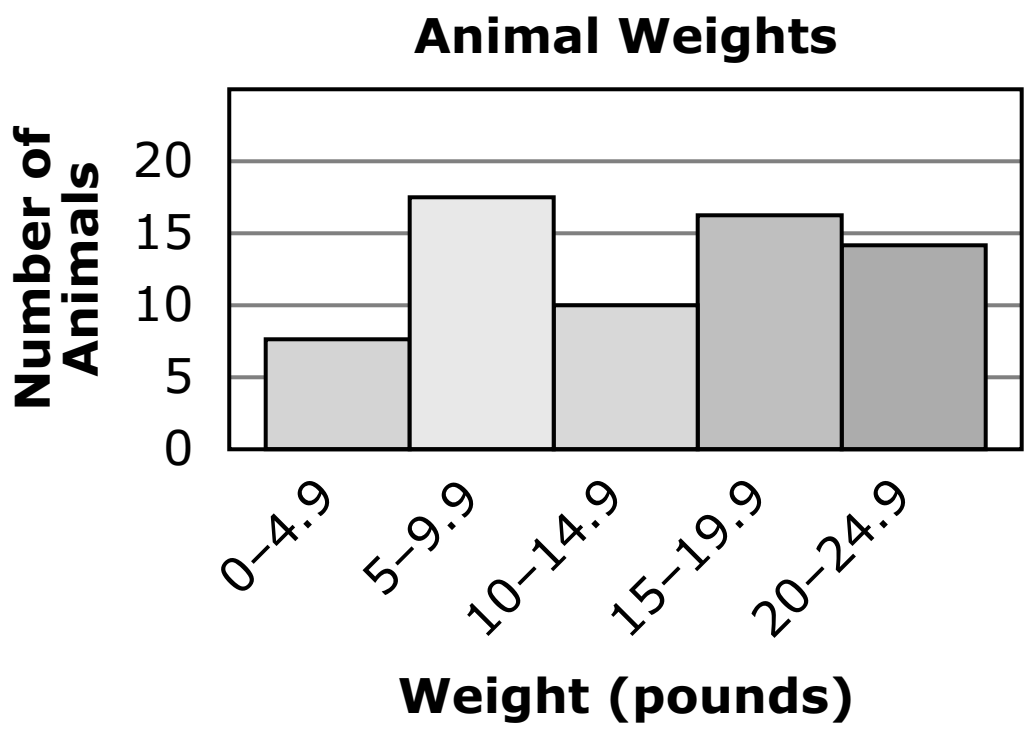
D. 3

Go on to the next page.

Practice

Practice answering this multiple-choice question by circling option C.

2. A veterinarian recorded the weights of animals in a histogram.



Which statement about animal weights is true?

A. The number of animals that weigh between 0 and 4.9 pounds is 5.

B. The number of animals that weigh between 5 and 9.9 pounds is 15.

C. The number of animals that weigh between 10 and 14.9 pounds is 10.

D. The number of animals that weigh between 15 and 19.9 pounds is 18.

Go on to the next page.

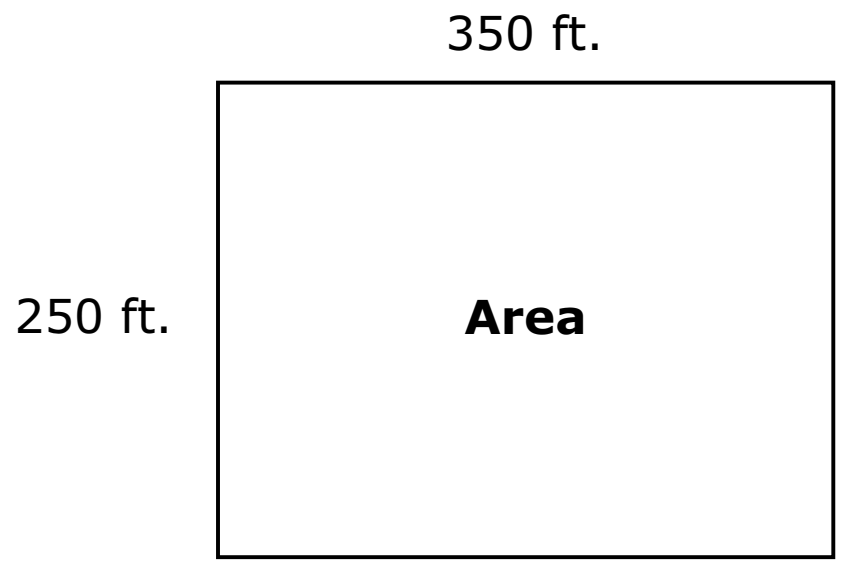
For fill-in-the-blank questions, you will need to write the answer in the space provided. You can also use this space to solve the question. The sample question shows you how to do this.

Note: Every fill-in-the-blank question includes instructions about which numbers and symbols can be used in your answer. It is important to follow these instructions when writing your answers.

Sample Question Answered in Test Book:

Please write your answer in the space below the question. You may use the digits: 0–9 and the symbols: slash for a fraction bar (/), a decimal (.), and a negative sign (−). If your answer is a mixed number, you must change it to an improper fraction or a decimal.

A fence is being built around an area with the dimensions shown.



The fencing will be 350 feet long and 250 feet wide. What is the total area, in square feet, within the fencing?

$350 \text{ ft} \times 250 \text{ ft} = 87500 \text{ ft}^2$

87500

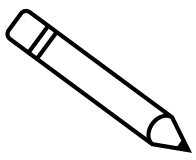
Go on to the next page.

For some fill-in-the-blank questions, you will need to write answers with negative signs and/or decimals. The sample question shows you how to do this.

Sample Question Answered in Test Book:

Please write your answer in the space below the question. You may use the digits: 0–9 and the symbols: slash for a fraction bar (/), a decimal (.), and a negative sign (−). If your answer is a mixed number, you must change it to an improper fraction or a decimal.

What is the value of $-3|-2x-y|$ when $x=-0.3$ and $y=\frac{1}{4}$?



$-3|-2(-0.3)-1/4|$

$-3|0.6-0.25|$

$-3|0.35|$

$-3(0.35)=-1.05$

Go on to the next page.

Practice

Practice answering this question in the space provided by writing −39.4.

Please write your answer in the space below the question. You may use the digits: 0–9 and the symbols: slash for a fraction bar (/), a decimal (.), and a negative sign (−). If your answer is a mixed number, you must change it to an improper fraction or a decimal.

3. What is the value of $-4|-10x-y|$ when $x=-1.3$ and $y=3.15$?

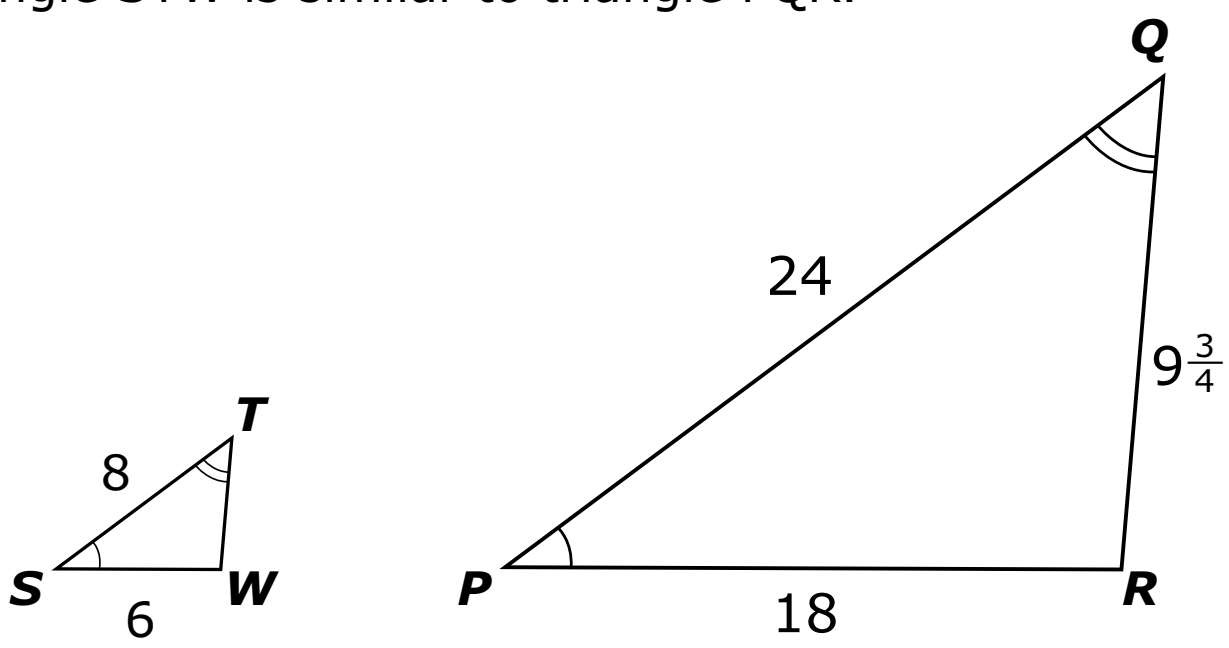
Go on to the next page.

For some fill-in-the-blank questions, the answer may be a mixed number. It is important to change mixed numbers into improper fractions or decimals because a space is not an accepted symbol. If an answer is given as a mixed number, it will be marked as incorrect. The sample question shows you how to answer the question correctly.

Sample Question Answered in Test Book:

Please write your answer in the space below the question. You may use the digits: 0–9 and the symbols: slash for a fraction bar (/), a decimal (.), and a negative sign (–). If your answer is a mixed number, you must change it to an improper fraction or a decimal.

Triangle STW is similar to triangle PQR.



What is the length of $\overline{TW}$?

$$\frac{ST}{PQ} = \frac{WS}{RP} = \frac{TW}{QR} \rightarrow \frac{8}{24} = \frac{6}{18} = \frac{TW}{9\frac{3}{4}}$$

$$\rightarrow \frac{1}{3} = \frac{1}{3} = \frac{TW}{9\frac{3}{4}}$$

$$\rightarrow TW = \frac{1}{3}\left(9\frac{3}{4}\right) = 3\frac{1}{4}$$

$$\rightarrow TW = 13/4$$

Go on to the next page.

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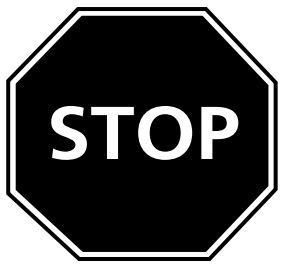
Practice

Practice answering this question in the space provided by converting the answer *b* = 1 1/2 into an improper fraction or a decimal. The improper fraction is 3/2, and the decimal is 1.5.

Please write your answer in the space below the question. You may use the digits: 0–9 and the symbols: slash for a fraction bar (/), a decimal (.), and a negative sign (–). If your answer is a mixed number, you must change it to an improper fraction or a decimal.

4. The Pythagorean Theorem is shown.

$$a^2 + b^2 = c^2$$

What is the value of b if $a = 2$ and $c = 2\frac{1}{2}$?