

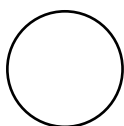
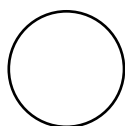
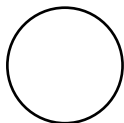
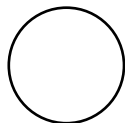
PROJECTILE MOTION

Scavenger Hunt

Name: _____

Date: _____ Per: _____

Directions: Solve the problem at each station. Use your answers to determine which problem to go to next. Be sure to write down the letter of the problem at each station in the circle. You should end at the problem you started with.



PREVIOUS ANSWER:

11 ft

PROJECTILE MOTION

Scavenger Hunt

A

Maria's height while jumping on a trampoline can be given by the equation

$$h = -16t^2 + 18t + 5$$

(where t = time in seconds and h = height in feet)



What is the maximum height that Maria will reach?

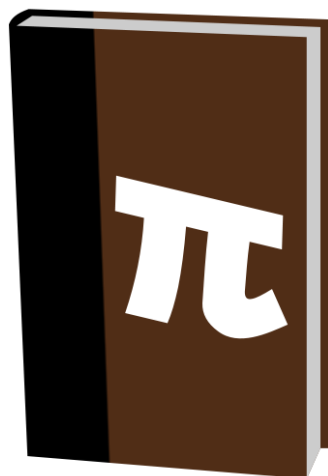
PREVIOUS ANSWER:

5.125 sec

PROJECTILE MOTION

Scavenger Hunt

B



Marsha threw her math book off a 30-foot building. The equation of the book can be represented by the equation

$$h = -16t^2 + 24t + 30$$

(where t = time in seconds and h = height in feet)

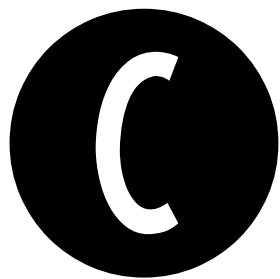
What is the maximum height of Marsha's math book?

PREVIOUS ANSWER:

6.5 ft

PROJECTILE MOTION

Scavenger Hunt



A punter kicks a football into the air. The pathway of the football can be represented by the equation

$$h = -16t^2 + 82t$$

(where t = time in seconds and h = height in feet)



How long will it take the football to reach the ground?

PREVIOUS ANSWER:

201 ft

PROJECTILE MOTION

Scavenger Hunt

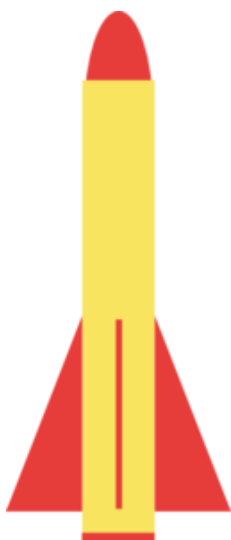
D

The path of a toy rocket fired into the air can be represented by the equation

$$h = -16t^2 + 75t$$

(where t = time in seconds and h = height in feet)

What is the height of the rocket after 3 seconds?

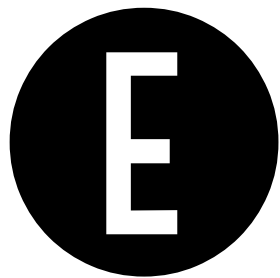


PREVIOUS ANSWER:

36 ft

PROJECTILE MOTION

Scavenger Hunt



Sean tossed a coin off a bridge into the stream below. The path of the coin can be represented by the equation

$$h = -16t^2 + 72t + 100$$

(where t = time in seconds and h = height in feet)



How long will it take the coin to reach the stream?

PREVIOUS ANSWER:

5.61 sec

PROJECTILE MOTION

Scavenger Hunt



The height of an arrow shot into the air can be represented by the equation

$$h = -16t^2 + 112t + 5$$

(where t = time in seconds and h = height in feet)

What is the maximum height of the arrow?

PREVIOUS ANSWER:

10.06 ft

PROJECTILE MOTION

Scavenger Hunt

G



While working on a roof, Rob dropped his hammer. The hammer's fall can be represented by the equation

$$h = -16t^2 + 20$$

(where t = time in seconds and h = height in feet)

How long will it take the hammer to reach the ground?

PREVIOUS ANSWER:

39 ft

PROJECTILE MOTION

Scavenger Hunt



The pathway of Sam's dive into the swimming pool can be represented by the equation

$$h = -16t^2 + 15t + 12$$

(where t = time in seconds and h = height in feet)



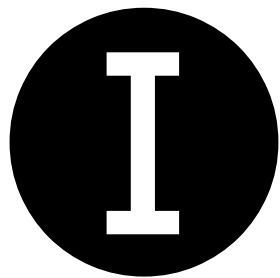
What is Sam's height
after 1 second?

PREVIOUS ANSWER:

81 ft

PROJECTILE MOTION

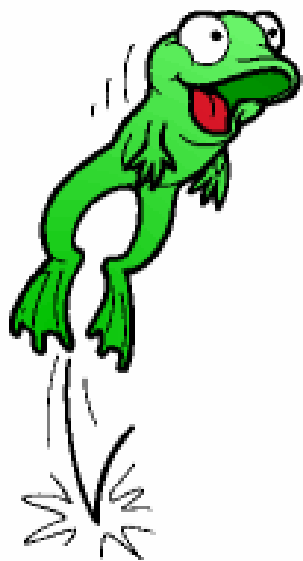
Scavenger Hunt



The pathway of a frog jumping onto a lily pad can be represented by the equation

$$h = -0.5t^2 + 3t + 2$$

(where t = time in seconds and h = height in feet)



What is the maximum height of the frog?

PREVIOUS ANSWER:

1.12 sec

PROJECTILE MOTION

Scavenger Hunt

J

To practice catching, the little league team uses a baseball-throwing machine. The pathway of the ball from the machine can be represented by the equation

$$h = -16t^2 + 48t + 4$$

(where t = time in seconds and h = height in feet)



What will be the height of the ball after 2 seconds?

PROJECTILE MOTION

Scavenger Hunt

Name: _____ **ANSWER KEY**

Date: _____ Per: _____

Directions: Solve the problem at each station. Use your answers to determine which problem to go to next. Be sure to write down the letter of the problem at each station in the circle. You should end at the problem you started with.

A

10.06 ft

G

1.12 sec

J

36 ft

E

5.61 sec

<div>F</div> <div>201 ft</div>	<div>D</div> <div>81 ft</div>
<div>I</div> <div>6.5 ft</div>	<div>C</div> <div>5.125 sec</div>
<div>B</div> <div>39 ft</div>	<div>H</div> <div>11 ft</div>

RECORD THE LETTERS OF THE SCAVENGER HUNT IN THE ORDER THAT YOU SOLVED THEM:

A G J E F D I C B H

***Note:** Based on where students begin, letters will fall in this order.