

Student Task	Use real data to interpret a circle graph regarding sports injuries.
Core Idea 5 Data Analysis	Formulate questions that can be addressed with data and collect, organize, analyze, and display relevant data to answer them. <ul style="list-style-type: none">• Use graphical representations of data
Core Idea 2 Mathematical Reasoning	Employ forms of mathematical reasoning and justification appropriately to the solution of a problem. <ul style="list-style-type: none">• Extract pertinent information from situations and determine what additional information is needed• Invoke problem-solving strategies
Core Idea 1 Number and Operation	<ul style="list-style-type: none">• Work flexibly with fractions, decimals, and percents to solve problems.

Sports Injuries

This problem gives you the chance to:

- use real data and interpret a circle graph
-

The table below shows some data about the percentage of injuries that occur when playing basketball.



Cause of injury	Percentage of injuries	Angle of sector in circle graph
On landing	45%	
Sharp twist/turn	30%	
Collision	10%	
Falling or tripping	7.5%	
Other	7.5%	
Total	100%	360°

Researchers want to represent the injury data on a circle graph.

1. Use the data on the table to calculate the angles of the sectors of the circle graph.

Show your calculations in the spaces below and write your answers in the table.

On landing

Sharp twist/turn

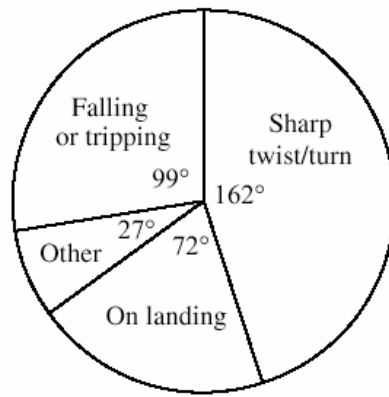
Collision

Falling or tripping

Other

2. This circle graph shows the causes of ankle injuries when playing a different sport.

Calculate the percentage of players who are injured in different ways.



Cause of injury	Angle of sector in circle graph	Percentage of injuries
On landing	72°	
Sharp twist/turn	162°	
Falling or tripping	99°	
Other	27°	
Total	360°	100%

Show your calculations in the spaces below and write your answers in the table.

On landing

Sharp twist/turn

Falling or tripping

Other

5

Sports Injuries

Test 8 Form A Rubric

The core elements of performance required by this task are:

- use real data to draw a circle graph

Based on these, credit for specific aspects of performance should be assigned as follows:

	Points	Section Points																					
<p>1. Correctly completes the table:</p> <table border="1"> <thead> <tr> <th>Cause of injury</th> <th>Percentage of injuries</th> <th>Angle of sector in circle graph</th> </tr> </thead> <tbody> <tr> <td>On landing</td> <td>45%</td> <td>162°</td> </tr> <tr> <td>Sharp twist/turn</td> <td>30%</td> <td>108°</td> </tr> <tr> <td>Collision</td> <td>10%</td> <td>36°</td> </tr> <tr> <td>Falling or tripping</td> <td>7.5%</td> <td>27°</td> </tr> <tr> <td>Other</td> <td>7.5%</td> <td>27°</td> </tr> <tr> <td>Total</td> <td>100%</td> <td>360°</td> </tr> </tbody> </table> <p>Five or four correct answers: 3 points</p> <p><i>Partial credit:</i> Three correct answers: 2 points Two correct answers: 1 point</p>	Cause of injury	Percentage of injuries	Angle of sector in circle graph	On landing	45%	162°	Sharp twist/turn	30%	108°	Collision	10%	36°	Falling or tripping	7.5%	27°	Other	7.5%	27°	Total	100%	360°	<p>3</p> <p>(2)</p> <p>(1)</p>	3
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Total Points		5																					

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