

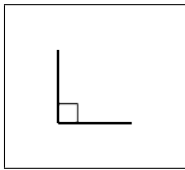
Benchmark angles

October 15, 2013

1 x3554cca2a4f26df7

Which of these angles has a measure of 90° ?

Ans 



Hint 1 We can easily identify a 90° angle. It looks like the corner of a rectangular piece of paper or a door. Sometimes, it is marked with a little square inside of the angle.

Hint 2 This angle is a 90° angle.



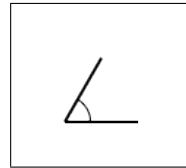
Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.1, Benchmark angles

Version: 8f650d3f.. 2013-10-11

2 x42f174ad068a99ce

Which of these angles has a measure of 60° ?

Ans 



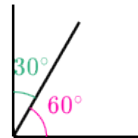
Hint 1 The 60° angle will have to be acute, which means smaller than a 90° angle. Two of the answer choices are acute angles.



Hint 2 A 60° angle is $\frac{2}{3}$ the size of a 90° angle. That means that it is more than half the size of a 90° angle.

Which angle looks bigger than half of a 90° angle?

Hint 3 Here is a 90° angle cut into a 60° angle and a 30° angle.



Hint 4 This angle is a 60° angle.

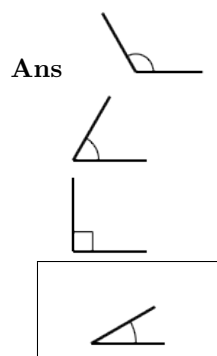


Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.1, Benchmark angles

Version: b3113463.. 2013-10-11

3 x5a53a7885cc1e412

Which of these angles has a measure of 30°



Hint 1 We can most easily identify a 90° angle. It looks like the corner of a rectangular piece of paper or a door.



The 30° angle will have to be smaller than that one. Two of the remaining angles are smaller than 90°.

Hint 2 A 30° angle is $\frac{1}{3}$ the size of a 90° angle.

It takes three 30° angles sitting side by side to make one 90° angle. Which angle could you fit 3 times inside of a 90° angle?

Hint 3 Here is a 90° angle cut into 3 angles of 30°.



Hint 4 The smallest angle pictured is a 30° angle.



Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.1, Benchmark angles

Version: b213797d.. 2013-10-11

4 x62d7b969bbdb037a

Which of these angles has a measure of 135°



Hint 1 We can easily identify a 90° angle. It looks like the corner of a rectangular piece of paper or a door.



Hint 2 The 135° angle will have to be obtuse, which means larger than a 90° angle. Only one of the answer choices is an obtuse angle.

Hint 3 This angle is a 135° angle.

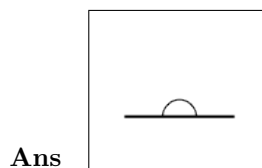


Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.1, Benchmark angles

Version: f8eac6aa.. 2013-10-11

5 x8ee189a99eeb0414

Which of these angles has a measure of 180°



Hint 1 A 180° angle is a special angle called a *straight angle*. This means that the two sides of the angle stretch out to form a straight line.

Hint 2 This angle is a 180° angle.

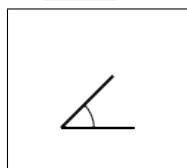


Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.1, Benchmark angles

Version: 7f758898.. 2013-10-11

6 xa6507021ffe7d53d

****Which of these angles has a measure of 45°****



Hint 1 We can most easily identify a 90° angle. It looks like the corner of a rectangular piece of paper or a door.



The 45° angle will have to be smaller than that one.

Hint 2 A 45° angle is $\frac{1}{2}$ the size of a 90° angle.

It takes two 45° angles sitting side by side to make one 90° angle. Which angle could you fit 2 times inside of a 90° angle?

Hint 3 Here is a 90° angle cut into 2 angles of 45°.



Hint 4 The smallest angle pictured is a 45° angle.



Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.1, Benchmark angles

Version: 4cdbd1dc.. 2013-10-11

7 x1caa681bcef7634e

****What is the measure of this angle?****



Ans 45°

90°

180°

135°

Hint 1 We can most easily identify a 90° angle. It looks like the corner of a rectangular piece of paper or a door. Does the angle in this problem look square like a 90° angle?

Hint 2 A 180° angle is twice the size of a 90° angle. It is called a *straight angle* and happens when one side of the angle rotates around to point in the opposite direction of the other side. It looks like this:



Hint 3 A 135° angle is bigger than a 90° angle and smaller than a 180° angle. Does the angle we are working on look bigger than 90°?

Hint 4 A 45° angle is half the size of a 90° angle. Does the angle shown look like we could fit 2 of them side by side in a 90° angle?

Hint 5 The measure of the angle is 45°.

Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.2, Benchmark angles

Version: 81b88e7a.. 2013-10-12

8 x50309d5f1b142ab0

****What is the measure of this angle?****



Ans 45°

90°

180°

135°

Hint 1 We can easily identify a 90° angle. It looks like the corner of a rectangular piece of paper or a door. Does the angle in this problem look square like a 90° angle?

Hint 2 A 180° angle is twice the size of a 90° angle. It is called a *straight angle* and happens when one side of the angle rotates around to point in the opposite direction of the other side. It looks like this:



Hint 3 A 45° angle is acute, which means that it is smaller than a 90° angle. Does the angle shown look smaller than 90° ?

Hint 4 A 135° angle is bigger than a 90° angle and smaller than a 180° angle. Does the angle we are working on look bigger than 90° and smaller than 180° ?

Hint 5 The measure of the angle is 135° .

Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.2, Benchmark angles

Version: c7b28af1.. 2013-10-12

9 x6d37865e43597476

****What is the measure of this angle?****



Ans 60°

90°

180°

120°

Hint 1 We can easily identify a 90° angle. It looks like the corner of a rectangular piece of paper or a door. Does the angle in this problem look square like a 90° angle?

Hint 2 A 60° angle is acute, which means that it is smaller than a 90° angle. Does the angle shown look smaller than 90° ?

Hint 3 A 180° angle is twice the size of a 90° angle. It is called a *straight angle* and happens when one side of the angle rotates around to point in the opposite direction of the other side. It looks like this:



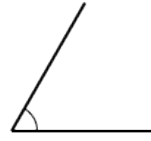
Hint 4 The measure of the angle is 180° .

Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.2, Benchmark angles

Version: 9df90499.. 2013-10-12

10 x8d5c6bc320e53991

****What is the measure of this angle?****



Ans

60°

90°

120°

180°

Hint 1 We can most easily identify a 90° angle. It looks like the corner of a rectangular piece of paper or a door. Does the angle in this problem look square like a 90° angle?

Hint 2 A 180° angle is twice the size of a 90° angle. It is called a *straight angle* and happens when one side of the angle rotates around to point in the opposite direction of the other side. It looks like this:



Hint 3 A 120° angle is bigger than a 90° angle and smaller than a 180° angle. Does the angle we are working on look bigger than 90° ?

Hint 4 A 60° angle is smaller than a 90° angle. Does the angle we are working on look smaller than 90° ?

Hint 5 The measure of the angle is 60° .

Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.2, Benchmark angles

Version: 4e1d1f6d.. 2013-10-12

11 xb0afbe833bec4b15

****What is the measure of this angle?****



Ans

30°

90°

180°

135°

Hint 1 We can most easily identify a 90° angle. It looks like the corner of a rectangular piece of paper or a door. Does the angle in this problem look square like a 90° angle?

Hint 2 A 180° angle is twice the size of a 90° angle. It is called a *straight angle* and happens when one side of the angle rotates around to point in the opposite direction of the other side. It looks like this:



Hint 3 A 135° angle is bigger than a 90° angle and smaller than a 180° angle. Does the angle we are working on look bigger than 90° ?

Hint 4 A 30° angle is smaller than a 90° angle. Does the angle we are working on look smaller than 90° ?

Hint 5 The measure of the angle is 30° .

Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.2, Benchmark angles

Version: 19bd21e5.. 2013-10-12

12 xedbfd6a3412204b7

What is the measure of this angle?



Ans 45°

90°
 180°
 135°

Hint 1 We can easily identify a 90° angle. It looks like the corner of a rectangular piece of paper or a door. Does the angle in this problem look square like a 90° angle?

Hint 2 We often see a square marking on 90° angles to indicate that they are right angles. When we see this, we can assume that the measure of the angle is 90° .

Hint 3 The measure of the angle is 90° .

Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.2, Benchmark angles

Version: bfc6cd35.. 2013-10-12

13 x5c354d48e3db6ac9

Match these angles with their measures.

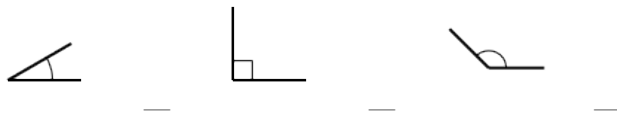
There should be one angle in each category.
 [[? categorization 1]]

Ans Drag the cards to the correct categories.

Hint 1 Let's arrange the angles from smallest to largest.

Hint 2 The smallest angle is 30° , next is 90° , next is 135° , and the largest is 180° .

Hint 3 $30^\circ - 90^\circ - 135^\circ - 180^\circ :: - :: - :: - ::$



Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.3, Benchmark angles

Version: ebe4f0d6.. 2013-10-12

14 x8d85ca9ed1137ab4

Match these angles with their measures.

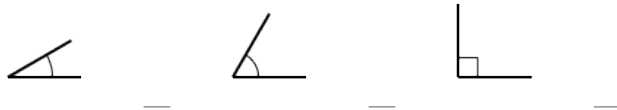
There should be one angle in each category.
 [[? categorization 1]]

Ans Drag the cards to the correct categories.

Hint 1 Let's arrange the angles from smallest to largest.

Hint 2 The smallest angle is 30° , next is 60° , next is 90° , and the largest is 135° .

Hint 3 $30^\circ - 60^\circ - 90^\circ - 135^\circ :: - :: - :: - ::$



Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.3, Benchmark angles

Version: 7a74a7fd.. 2013-10-12

15 x90132d401d6471d6

Match these angles with their measures.

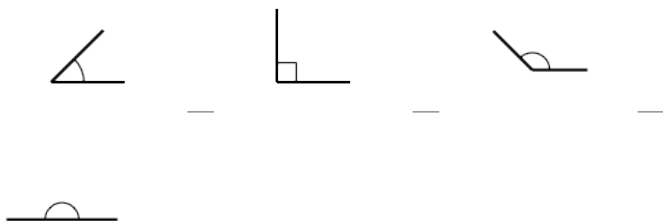
There should be one angle in each category.
 [[? categorization 1]]

Ans Drag the cards to the correct categories.

Hint 1 Let's arrange the angles from smallest to largest.

Hint 2 The smallest angle is 45° , next is 90° , next is 135° , and the largest is 180° .

Hint 3 $45^\circ - 90^\circ - 135^\circ - 180^\circ :: - :: - :: - ::$



Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.3, Benchmark angles

Version: aae56960.. 2013-10-12

16 xd5177ccaf78d3a30

****Match these angles with their measures.****

There should be one angle in each category.

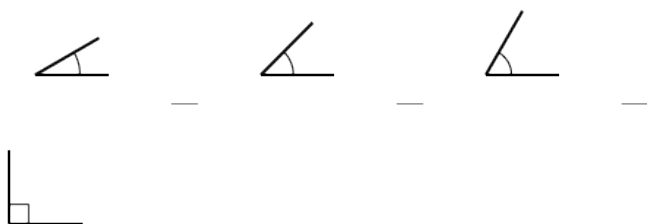
[[? categorization 1]]

Ans Drag the cards to the correct categories.

Hint 1 Let's arrange the angles from smallest to largest.

Hint 2 The smallest angle is 30° , next is 45° , next is 60° , and the largest is 90° .

Hint 3 $30^\circ - 45^\circ - 60^\circ - 90^\circ :: - :: - :: - ::$



Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.3, Benchmark angles

Version: c68ca331.. 2013-10-12

17 xe5974944cc434f58

****Match these angles with their measures.****

There should be one angle in each category.

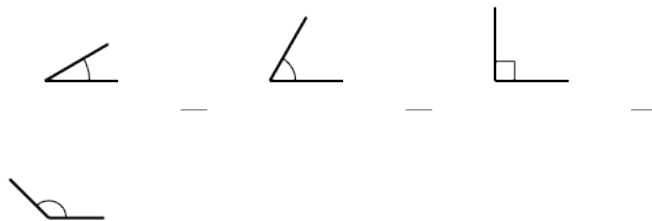
[[? categorization 1]]

Ans Drag the cards to the correct categories.

Hint 1 Let's arrange the angles from smallest to largest.

Hint 2 The smallest angle is 30° , next is 60° , next is 90° , and the largest is 135° .

Hint 3 $30^\circ - 60^\circ - 90^\circ - 135^\circ :: - :: - :: - ::$



Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.3, Benchmark angles

Version: 91c7a197.. 2013-10-12

18 xfc1619c4ab461ddb

****Match these angles with their measures.****

There should be one angle in each category.

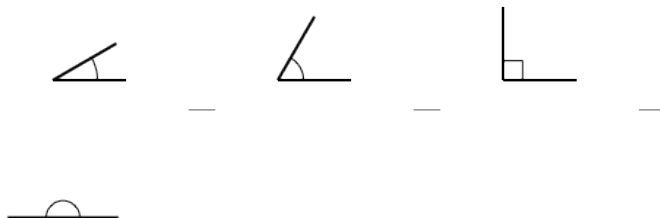
[[? categorization 1]]

Ans Drag the cards to the correct categories.

Hint 1 Let's arrange the angles from smallest to largest.

Hint 2 The smallest angle is 30° , next is 60° , next is 90° , and the largest is 180° .

Hint 3 $30^\circ - 60^\circ - 90^\circ - 180^\circ :: - :: - :: - ::$



Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.3, Benchmark angles

Version: 5fa7f6a4.. 2013-10-12

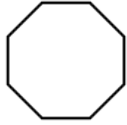
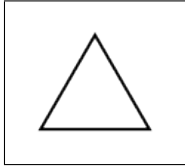
19 x29ff9407ced34f2c

All of these shapes are *regular*, meaning that all of the sides of each shape are the same length.

****Which of these regular shapes has 60° angles between its sides?***



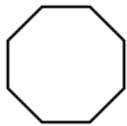
Ans



Hint 1 This regular pentagon has 5 obtuse angles (larger than 90°). If you are not sure, hold up the corner of a rectangular piece of paper to each angle and compare each to the 90° angle of the paper.



Hint 2 This regular octagon has 8 obtuse angles (larger than 90°). If you are not sure, hold up the corner of a rectangular piece of paper to each angle and compare each to the 90° angle of the paper.



Hint 3 This equilateral triangle has 3 angles which are all equal to 60° .

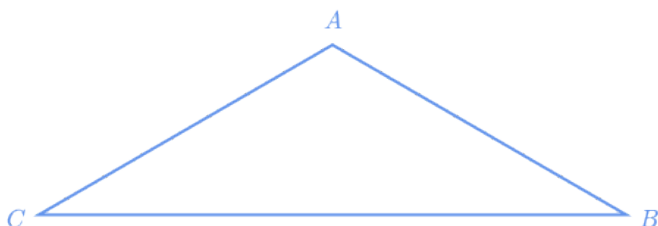


Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.4, Benchmark angles
Version: 373ed1ec.. 2013-10-15

20 x6cff27b8821951af

This triangle has angle measures of 30° and 120° .

****Identify which angle or angles in the triangle has each angle measure.****



[[? categorization 1]]

Ans Drag the angle names to the correct measurement.

Hint 1 This triangle has 2 small angles, and 1 larger angle.

Hint 2 The small angles are $\angle B$ and $\angle C$. The larger angle is $\angle A$.

Hint 3 The measures of the angles are: $\angle A = 120^\circ$ $\angle B = 30^\circ$ $\angle C = 30^\circ$

Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.4, Benchmark angles

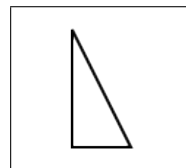
Version: c3fdb3ac.. 2013-10-12

21 xd46610fd6b543fcd

****Which of these triangles has a 90° angle?***



Ans



Hint 1 This triangle has 3 acute angles, all smaller than 90° . If you are not sure, hold up the corner of a rectangular piece of paper to each angle and compare each to the 90° angle of the paper.



Hint 2 This triangle has 1 obtuse angle, larger than 90° , and 2 acute angles, smaller than 90° . If you are not sure, hold up the corner of a rectangular piece of paper to each angle and compare.



Hint 3 This triangle has 1 right angle, equal to 90° . If you are not sure, hold up the corner of a rectangular piece of paper to the largest angle and compare.



Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.4, Benchmark angles

Version: 3bbb9a8c.. 2013-10-15

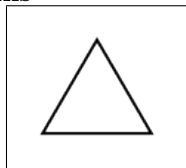
22 xef45230d848911b2

All of these shapes are *regular*, meaning that all of the sides of each shape are the same length.

Which of these regular shapes has 60° angles between its sides?



Ans



Hint 1 This regular hexagon has 6 obtuse angles (larger than 90°). If you are not sure, hold up the corner of a rectangular piece of paper to each angle and compare each to the 90° angle of the paper.



Hint 2 This square has 4 right angles (equal to 90°). If you are not sure, hold up the corner of a rectangular piece of paper to each angle and compare each to the 90° angle of the paper.



Hint 3 This equilateral triangle has 3 angles which are all equal to 60° .



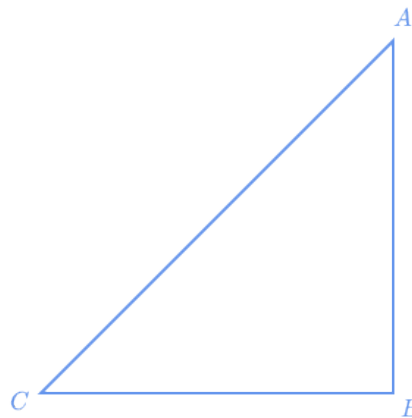
Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.4, Benchmark angles

Version: de638271.. 2013-10-15

23 xf56c85092c5059c0

This triangle has angle measures of 45° and 90° .

Identify which angle or angles in the triangle has each angle measure.



[[? categorization 1]]

Ans Drag the angle names to the correct measurement.

Hint 1 This triangle has 2 small angles, and 1 larger angle.

Hint 2 The small angles are $\angle A$ and $\angle C$. The larger angle is $\angle B$.

Hint 3 The measures of the angles are: $\angle A = 45^\circ$ $\angle B = 90^\circ$ $\angle C = 45^\circ$

Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.4, Benchmark angles

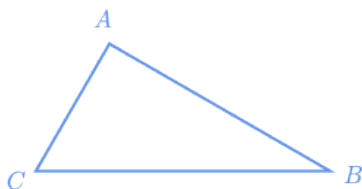
Version: c97ba279.. 2013-10-12

24 xfc906b64a303a11f

This triangle has angle measures of 30° , 60° , and 90° .

Identify which angle in the triangle has each angle measure.

There should be one angle in each category.



[[? categorization 1]]

Ans Drag the angle names to the correct measurement.

Hint 1 We can think about the order of the angles from smallest to largest.

The smallest angle in any triangle is across from the shortest side. The largest angle is across from the longest side.

Hint 2 The smallest angle is $\angle B$, next is $\angle C$, and the largest is $\angle A$.

Hint 3 The measures of the angles are: $\angle B = 30^\circ$ $\angle C = 60^\circ$ $\angle A = 90^\circ$

Tags: CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.4, Benchmark angles

Version: 7ad8a273.. 2013-10-12

25 x2af6283782953afa

****Match these angles with the closest measure.****

There may be more than one card in each category.

[[? categorization 1]]

Ans Drag the cards to the correct categories.

Hint 1 When a pair of scissors is closed, the angle between the blades is 0° .

Hint 2 When a person is sitting up straight in a chair, his legs and back make a 90° angle.

A ladder going up to a diving board makes a 90° angle with the diving board.

Hint 3 When a person is lying down flat, his legs and back make a *straight angle* of 180° .

Hint 4 0°

* The blades of a pair of scissors when closed

90°

* A person's legs and back when sitting up straight in a chair * A diving board and the ladder going up to it

180°

* A person's legs and back when lying down flat

Tags: Image needs attribution, CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.5, Benchmark angles

Version: 2c63efb6.. 2013-10-15

26 x4a41ed86b953d410

****Match these angles with the closest measure.****

There may be more than one card in each category.

[[? categorization 1]]

Ans Drag the cards to the correct categories.

Hint 1 When a pair of scissors is closed, the angle between the blades is 0° .

Hint 2 When a person is sitting up straight in a chair, his legs and back make a 90° angle.

A ladder going up to a diving board makes a 90° angle with the diving board.

Hint 3 When a person is lying down flat, his legs and back make a *straight angle* of 180° .

Hint 4 0°

* The blades of a pair of scissors when closed

90°

* A person's legs and back when sitting up straight in a chair * A diving board and the ladder going up to it

180°

* A person's legs and back when lying down flat

Tags: Image needs attribution, CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.5, Benchmark angles

Version: 6730ec4a.. 2013-10-15

27 x615a6e4f048a23b0

****Match these angles with their measures.****

There may be more than one card in each category.

[[? categorization 1]]

Ans Drag the cards to the correct categories.

Hint 1 When a crocodile's mouth is closed, the angle between its jaws is 0° .

Hint 2 A capital letter L in block printing forms a 90° angle.

Hint 3 When a book is open all the way flat on a table, the covers make a *straight angle* of 180° .

When you turn to face the opposite direction, you make a 180° turn.

Hint 4 0°

* A crocodile's mouth when it is closed

90°

* A capital letter L in block printing

180°

* The front and back cover of a book that is open all the way flat on the table * The angle you turn to face the opposite direction

Tags: Image needs attribution, CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.5, Benchmark angles
Version: bafba8d3.. 2013-10-15

28 x64de888209ceabe2

****Match these angles with the closest measure.****
There may be more than one card in each category.
[[? categorization 1]]

Ans Drag the cards to the correct categories.

Hint 1 At 12:00, the angle between the hands of a clock is 0° .

Hint 2 The answers going *across* on a crossword puzzle are at an angle of 90° from the answers going *down*.

Hint 3 At 8:00, the angle between the hands of a clock is 120° . You can think of it as covering $\frac{1}{3}$ of the total 360° of the circle.

We can be sure that the sides of a regular hexagon are not at an angle of 0° . Because the cells of the honeycomb are not squares or rectangles, they do not have angles measuring 90° . The angles of a regular hexagon are 120° .

Hint 4 0°
* The angle of the hands on a clock at 12:00 90°
* The angle between the "Across" answers and the "Down" answers on a crossword puzzle grid 120°
* The angle of the hands on a clock at 8:00 * The angles of the sides of one hexagonal cell in a honeycomb

Tags: Image needs attribution, CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.5, Benchmark angles
Version: 8530e71f.. 2013-10-15

29 xb4d725629a955ae4

****Match these angles with the closest measure.****
There may be more than one card in each category.
[[? categorization 1]]

Ans Drag the cards to the correct categories.

Hint 1 When a shark's mouth is closed, the angle between its jaws is 0° .

Hint 2 At 4:30, the hands on a clock are at a 45° angle. We can see that it is half of the 90° angle between the 3 and the 6.

Two slices of an 8-slice round pizza would make one quarter of the pizza, so they would make an angle of 90° . One slice would make half of that angle, so it would be 45° .

Hint 3 A number 2 on a digital watch is made up of 5 segments. Each one is at an angle of 90° with the other adjacent segment or segments.

Hint 4 0°
* The jaws of a shark with its mouth closed 45°
* The angle of the hands on a clock at 4:30 * The point of a slice of an 8-slice pizza 90°
* The angle between the line segments used to make a number 2 on a digital watch

Tags: Image needs attribution, CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.5, Benchmark angles
Version: 905b4001.. 2013-10-15

30 xe2dda50d63e00f1c

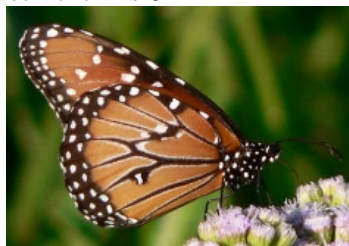
****Match these angles with their measures.****
There may be more than one card in each category.
[[? categorization 1]]

Ans Drag the cards to the correct categories.

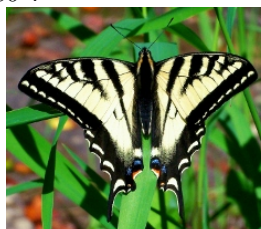
Hint 1 When a book is closed, the angle between the front and back covers is 0° .

When a book is open all the way flat on a table, the covers make a *straight angle* of 180° .

Hint 2 When a butterfly's wings are pointing up together, they are not rotated apart at all, so the angle between them is 0° .



When a butterfly's wings are open all the way, they stretch out parallel to the ground and make an angle of 180° .



When a butterfly's wings are open half way, each one makes an angle of 45° from their straight-up position. Together they make an angle of 90° .



Hint 3 0°

* The front and back cover of a book that is closed * A butterfly's wings when they are pointing up together

90°

* A butterfly's wings when they are halfway open

180°

* The front and back cover of a book that is open all the way flat on the table * A butterfly's wings when they are fully open and parallel to the ground

Tags: Image needs attribution, CC.4.MD.C.5, SB.4.1.K.4.SR, Benchmark angles.5, Benchmark angles

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