

*![C:\Users\hoytn\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\06XV79JA\question-marks[1].jpg]()![C:\Users\hoytn\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\06XV79JA\question-marks[1].jpg]()*

What shapes would result from making a cut through a right rectangular prism or a right rectangular pyramid?

**Vertical and Horizontal Slices to Right Rectangular Prisms**

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| 1. A right rectangular prism is sliced parallel to face $ABCD$.
2. Shade in the sliced region. What shape is the result of the slice? What are the dimensions of the slice? Sketch and label it below.
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| 1. A right rectangular prism is sliced parallel to face $LMON$.
2. Shade in the sliced region. What shape is the result of the slice? What are the dimensions of the slice? Sketch and label it below.
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| 1. A right rectangular prism has been sliced perpendicular to $BCEH$, as shown at right. The resulting slice has a height equal to the height of the prism.
2. Marco thinks the slice may be a parallelogram that is not a rectangle. Can he be right? Explain.
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**Vertical and Horizontal Slices to Right Rectangular Pyramids**

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| 1. A right rectangular pyramid is sliced through segment $a$ and parallel to the base.

1. Shade in the sliced region. What shape is the result of the slice? Sketch it below.
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| 1. A right rectangular pyramid is sliced through the vertex to the base.

1. Shade in the sliced region. What shape is the result of the slice? Sketch it below.
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| 1. A right rectangular pyramid is sliced through segment $a$ and perpendicular to the base.

1. Shade in the sliced region. What shape is the result of the slice? Sketch it below.
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**Angled Slices to Right Rectangular Prisms**

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| 1. Can a right rectangular prism be sliced at an angle, so that the resulting slice looks like Figure 1?
2. If it is possible, shade in the sliced region of the prism that would make Figure 1. If it’s not possible, why not?
3. How many faces of the prism does the slice meet/cut through?
 |   |
| 1. Can a right rectangular prism be sliced at an angle, so that the resulting slice looks like Figure 2?
2. If it is possible, shade in the sliced region of the prism that would make Figure 2. If it’s not possible, why not?
3. How many faces of the prism does the slice meet/cut through?
4. Are there other ways to slice a right rectangular prism that result in other quadrilateral-shaped slices? If it is possible, shade in the sliced region of the prism, and sketch the shape below. If it’s not possible, why not?
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| 1. Can a right rectangular prism be sliced at an angle, so that the resulting slices looks like Figures 5, 6, and 7?

1. If it is possible, shade in the sliced region of the prisms that would make each Figure. If it’s not possible, why not?

  1. How many faces of the prism does the slice meet/cut through?
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**Angled Slices to Right Rectangular Pyramids**

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| 1. Can a right rectangular pyramid be sliced at an angle, so that the resulting slice looks like Figure 8?
2. If it is possible, shade in the sliced region of the prism that would make Figure 8. If it’s not possible, why not?
3. How many faces of the prism does the slice meet/cut through?
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| 1. Can a right rectangular pyramid be sliced at an angle, so that the resulting slice looks like Figure 9?
2. If it is possible, shade in the sliced region of the prism that would make Figure 9. If it’s not possible, why not?
3. How many faces of the prism does the slice meet/cut through?
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