# **NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_PER.\_\_\_\_\_\_**

## **GEOMETRY SPRING SEMESTER REVIEW**

**Find the value of ‘’ in each of the following.**

**Determine if the given lengths can form a triangle. If yes, classify it by ANGLES.**

|  |  |
| --- | --- |
| 1. YES or NO Classify: | , , and  |

**Find the indicated value in each of the following.**

|  |  |
| --- | --- |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_
 | Find the EXACT value of ‘’. |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_
 | Find the EXACT value of ‘’. |
| 4. \_\_\_\_\_\_\_\_\_\_\_\_ | Find the EXACT value of ‘’. |
| 5. \_\_\_\_\_\_\_\_\_\_\_\_ | Find the EXACT value of ‘’. |
| 6. \_\_\_\_\_\_\_\_\_\_\_\_ | Find the EXACT value of ‘’. |

**Find the indicated values.**

|  |  |
| --- | --- |
| 1. \_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ | Find the indicated trigonometric ratios for the triangle below. |

**QUADRILATERALS**

**Complete each statement about and tell why you chose that answer.**

|  |  |
| --- | --- |
| 1. Answer:\_\_\_\_\_\_\_\_\_\_\_\_

Why? |  |
| 1. Answer:\_\_\_\_\_\_\_\_\_\_\_\_

Why? |  |
| 1. Answer:\_\_\_\_\_\_\_\_\_\_\_\_

Why? |  and \_\_\_\_\_ are supplementary. |

**For each parallelogram, find the values of ‘’, ‘’, and ‘’.**

|  |  |
| --- | --- |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |

**Use and the given information to find each value.**

|  |  |
| --- | --- |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_
 | If , find the . |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_
 | Find if . |

 **is an isosceles trapezoid with bases and and median . Use the given information to solve each problem.**

|  |  |
| --- | --- |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_
 | Find if and . |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_
 | If and , find . |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_
 | If , , and , find the value of ‘’. |

 **is an isosceles trapezoid. Decide whether each statement is TRUE or FALSE (circle one), and explain your reasoning.**

|  |  |
| --- | --- |
| 1. TRUE or FALSE

 Explain: |  |
| 1. TRUE or FALSE

 Explain: |  |
| 1. TRUE or FALSE

 Explain: |  |

 **is a rectangle. Find the value of ‘’.**

|  |  |
| --- | --- |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_
 |  and  |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_
 |  and  |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_
 |  and  |

AREA & PERIMETER OF POLYGONS

**Find the area of each polygon. Leave your answers in simplest form. Write your final answer, with its corresponding units, in the blank provided.**

|  |  |
| --- | --- |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_
 | Find the area of the trapezoid: |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_
 | Find the area of the rhombus. |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_
 | The diagonals of a rhombus are and long. Find the area of the rhombus. |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the area of a trapezoid that is tall, and has bases of  and . |

**AREAS OF REGULAR POLYGONS**

**Find the area of each of the following regular polygons. Leave your answers in simplest form. Write your final answer, with appropriate units, in the blank provided.**

|  |  |
| --- | --- |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the area of the equilateral triangle with the indicated apothem length: |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the area of the regular quadrilateral with the indicated radius: |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the area of the regular polygon with the given side length: |

**AREA & VOLUME OF PRISMS**

**Find the indicated measure for each of the prism described below. Write your final answer, with its corresponding units, in the blank provided.**

|  |  |
| --- | --- |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 |  |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the volume of a cube with a base edge of . |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the Surface Area of the right triangular prism. |

### CIRCLE BASICS

Find the correct answer for each of the following. Write your final answer in the blank provided. Leave your answers in simplest form.

|  |  |
| --- | --- |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | In a given circle, the radius is . Find the measure of the circle’s diameter. |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | In a given circle, the diameter is . Find the measure of the circles’ radius. |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | In a given circle, the diameter is . Find the circumference of the circle. |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 |  is a tangent to at . is a radius. Find the measure of ∠. |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 |  is tangent to . , . Find the length of . |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 |  and are tangent to . and . Find the value of ‘’. |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the perimeter of the quadrilateral. |

CENTRAL ANGLES, ARCS, & SECTORS

Find the correct answer for each of the following. Write your final answer in the blank provided. Leave your answers in simplest form.

|  |  |
| --- | --- |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | In the diagram the measure of  |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Given that is a diameter, find . |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the . |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | If and , then find . |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find . |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | If , find the EXACT length of . |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | If , find the EXACT area of . |

CIRCLES & ANGLES

Find the correct answer for each of the following. Write your final answer in the blank provided. Leave your answers in simplest form.

|  |  |
| --- | --- |
| ***1***1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the measure of . |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the value of ‘’. |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the measure of ∠. |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the measure of . |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the measure of ∠. |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the measure of ∠. |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the measure of ∠. |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the value of ‘’. |
| 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_
 | Find the value of ‘’. |

**CYLINDERS, CONES, & SPHERES**

**Find the correct answer for each of the following. Leave your answers in simplest form. Write your final answer, with its corresponding units, in the blank provided.**

|  |  |
| --- | --- |
| 1. \_\_\_\_\_\_\_\_\_\_
 | Find the Volume of the cylinder: |
| 1. \_\_\_\_\_\_\_\_\_\_
 | Find the Lateral Area of the right circular cone: |
| 1. \_\_\_\_\_\_\_\_\_\_
 | Find the Volume of the right circular cone: |
| 1. \_\_\_\_\_\_\_\_\_\_
 | Find the Surface Area of the sphere: |
| 1. \_\_\_\_\_\_\_\_\_\_
 | Find the Volume of the sphere: |

**10**

**8**

**;**

**7**

**7**

**7**