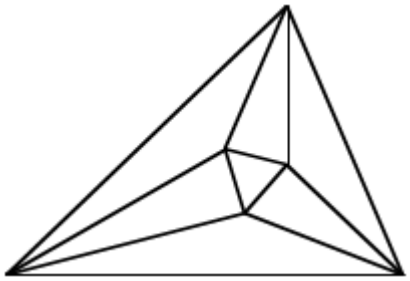
Meet 1 – Team Event 2019-20

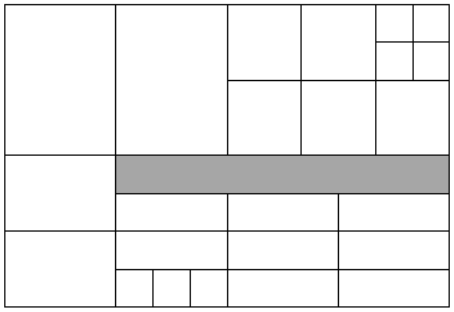


Questions are worth 4 points each.
No calculators allowed

_____ **1.** Evaluate: $\sqrt{81 + 144}$

_____ **2.** Let $m \phi n = m + n - mn$. What is the value of $7 \phi (1 \phi 10)$?

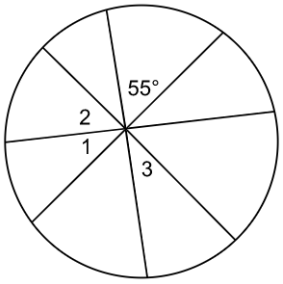
_____ mi **3.** Teri bikes 50 miles in 2 hours. Cam bikes 36 miles in 3 hours. At these rates, how many more miles will Teri bike than Cam when they each bike for 4 hours?



_____ **4.** The entire large rectangle represents 1 whole. Which fraction represents the shaded portion? *(Hint: The diagram is made to scale. If partitions appear to be equal, they are!)*

_____ **5.** A café has 8 soups, 14 sandwiches, and 7 drinks on its menu. Each day, the café offers a different combination of a soup, a sandwich, and a drink as its daily special. For how many days could the café offer a different daily special before it would have to repeat a previous daily special?

_____ **6.** Let $\Psi\ B = \frac{A}{B} + \frac{B}{A}$. What is the value of $0.1\ \Psi\ 2$? Write your answer as a decimal.



° _____ **7.** A circular diagram is shown. In the diagram, angles 1 and 2 are complementary. What is the measure, in degrees, of angle 3?

Add ( ) _____ **8.** An expression is shown twice. Add **one pair** of parentheses to **each** expression so that the value of the first expression is as large as possible and the value of the second expression is as small as possible.

as large as possible: $7 - 4 \times 8 - 2 + 5$

as small as possible: $7 - 4 \times 8 - 2 + 5$

_____ $^{mi}/_{min}$ **9.** A vehicle is traveling 45 miles per hour. What is the vehicle's speed in miles per minute?

_____ **10.** How many different 3-digit numbers can be formed using the digits 2, 4, and 7 if no digits appear more than once?

Name_____ School_____