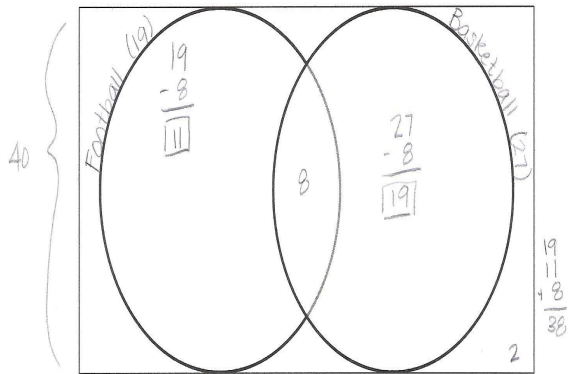


Venn Diagrams

Name: _____ Date: _____

1. Out of 40 middle school athletes, 19 play football and 27 play basketball. Eight of these athletes play both sports.

Use the diagram below to organize the information from the word problem and answer the questions that follow. Remember to *label your circles*.

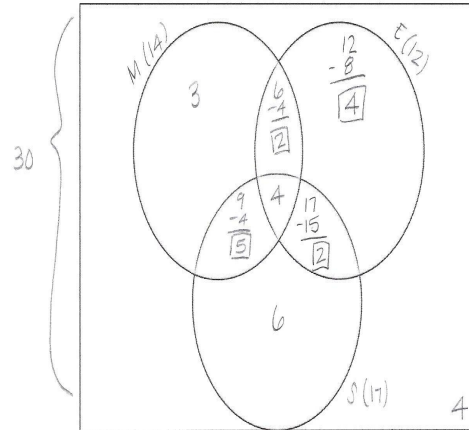


- How many students play *only* football? 11
- How many students play *only* basketball? 19
- How many students are *neither* football players nor basketball players? 2
- What is the *probability* that a randomly-chosen student from this group is *only* a football player? $\frac{11}{40}$

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2. Thirty students were asked about their favorite subjects in school. Fourteen students prefer math, 12 students like English, and 17 favor science. Four of these students enjoy all three subjects. Nine of them like math *and* science, and 6 of them prefer math *and* English. Six students prefer *only* science.

Use the diagram below to organize the above information, then answer the questions that follow. Remember to *label your circles*.



- How many students like *only* English? 4
- How many students like English and science? 6
- How many students like *only* English and science? 2
- Are there any students that don't like any of the three subjects? Yes
If yes, then how many? 4
- What is the probability that a student likes *only* math? $\frac{3}{30} = \frac{1}{10}$

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