

Commentary

Venus, IV

1. **(5)** Students will probably add $2 + 8 + 1 + 3 = 14$ and then subtract 14 from 19 to get 5. Some will start with 19 and subtract 2, 8, 1, and 3 to get 5. Others may *guess and check*.
2. **(8; 16; 32)** Students can count the cats to decide how many tails, although not all the tails themselves are visible. They can also count the ears, since they are visible. The challenge is to count the legs -- they are not visible, and a child will have to count four per cat.
3. **(8 o'clock)** If a student knows that the answer is 8:00 but doesn't know how to draw the clock hands, give them partial credit.
4. **(10)** This problem could be modeled by taking 5 pieces of paper, 1 per bug, and cutting them apart. An extension of this problem, which will come up in later years, is to consider what happens when those 10 bugs break in half, and then those 20, and so on.
5. **(The chart would be similar to that below.)**

Child Pulling	Child Riding
Alice	Sam
Alice	Kevin
Sam	Alice
Sam	Kevin
Kevin	Alice
Kevin	Sam

6. **(6)** The problem involves both adding and subtracting, and also has extraneous information. The two positive runs are added, and the yardage lost is subtracted. The jersey number has nothing to do with it. Some students might not know what the terms mean, if they are unfamiliar with football. It would profit those students to have a little about the game explained to them before they attempt the problem.
7. **(10)** Students can draw triangles in the large shape, to cover it. 12 triangles exactly fit, and this number is closer to 10 than to 5 or 20. A visual estimate should tell students that 5 is not enough, and 20 is too large a number.