

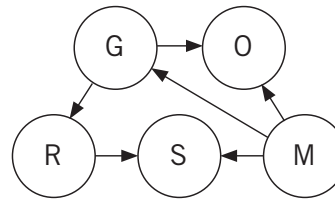


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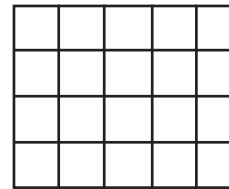
Grades
2-3
2015

1 Harry and Mary went peach-picking. Harry picked 16 more peaches than Mary. On the way back Mary ate 2 of her peaches. How many of his peaches should Harry give to Mary so that both of them have the same number of uneaten peaches?

2 The numbers 1, 2, 3, 4, and 5 are covered by the five circles shown (each circle covers only one number). Each arrow in the diagram points from a smaller number to a larger number. What number is covered by circle G?



3 A rectangle is divided into 20 square cells, as shown in the diagram. How many of these cells share an odd number of sides with other cells?



4 An RSM grade 2 class went to a petting zoo that has sheep and goats. The girls counted sheep ears, and the boys counted goat ears. The girls counted 12 more ears than the boys. How many more sheep legs than goat legs are there at the petting zoo?

5 How many ways are there to circle exactly 3 letters in the phrase shown so that the circled letters read (from left to right) R-S-M?

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6 A family has 10 children – brothers and sisters – all of different ages. One of the sisters, Maria, has twice as many older brothers as younger brothers. Her brother, John, has as many older brothers as younger brothers. How many brothers does their sister, Katrine, have?

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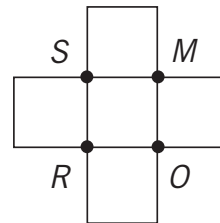
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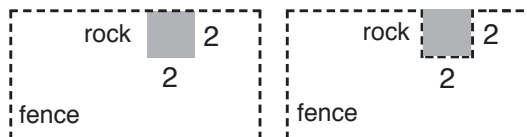
7

How many routes are there from R to M using only the lines shown in the diagram? All routes have the same starting point R , the same ending point M , and may or may not share any other points or lines with other routes. Each route cannot go over any part of itself (points or lines) more than once, and no jumping is allowed.



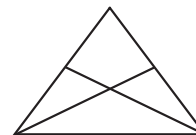
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RSM had a rectangular garden with a 25-foot long fence around it. There was a square rock (2 feet by 2 feet) inside the garden, as shown in the first picture. Then the RSM gardener changed the fence so that the rock (which is still in the same place) is now outside the garden, as shown in the second picture. How many feet long is the fence now?



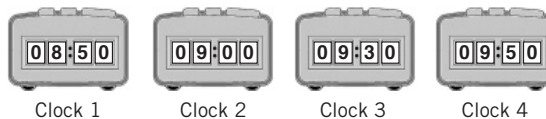
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How many triangles of all sizes and positions are there in the diagram?



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Look at the four clocks. They all should show the same (correct) time, but one of them is off by 10 minutes, one is off by 20 minutes, and one is off by 40 minutes. By how many minutes is the remaining clock off? Be sure the answer is between 0 and 100.

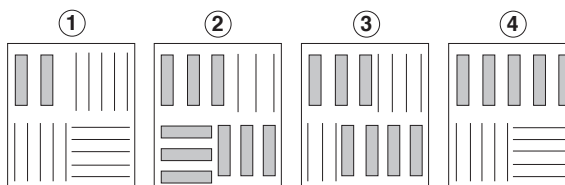


11

We call a calendar month “All-Thirteen” if in this month and the month before and the month after together there are exactly 13 Sundays, 13 Mondays, 13 Tuesdays, 13 Wednesdays, 13 Thursdays, 13 Fridays, and 13 Saturdays. How many “All-Thirteen” calendar months are there in the year 2015? Remember that months in the year 2015 have 28, 30, or 31 days each.

12

Three erasers cost as much as five pencils. Figure out which box of supplies costs the most. Note that all empty boxes cost the same as each other, all pencils cost the same as each other, and all erasers cost the same as each other. In the diagrams pencils look like lines, and erasers look like shaded rectangles.



Please fold over on line. Write answers on back.

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