

**AMC WARM-UP PAPER  
UPPER PRIMARY 7  
SOLUTIONS**

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1.  $2694 \div 100 = 26.94$ ,

hence (B).

2. You buy 30 litres and save 4 c per litre, so you save  $30 \times 4c = 120c = \$1.20$ ,

hence (D).

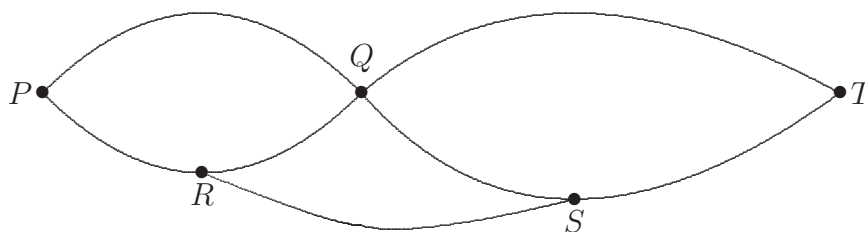
3. The difference between 2 below zero and 10 above is 12 degrees Celsius,

hence (E).

4. Sally's post-it notes are half the size of Henry's, so it would take twice as many,  $2 \times 100 = 200$ , of her post-it notes to cover Henry's desk, Since her desk is twice the size of Henry's it will take twice that number,  $2 \times 200 = 400$ , of her post-it notes to cover her desk,

hence (E).

5. If we consider the different ways we can travel if we keep moving to the right, we can get the five ways  $PQT$ ,  $PRST$ ,  $PRQT$ ,  $PQST$  and  $PRQST$ .



In addition to these 5 routes, we can also travel  $PQRST$  and  $PRSQT$ , so there are 7 ways,

hence (D).

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6. Fred and Anne together weigh 62 kg and Fred and Sally together weigh 59 kg. This means that Anne weighs 3 kg more than Sally.

Now, since Sally and Anne together weigh 53 kg, if we take 3 kg from the 53 kg, this must be twice Sally's weight, so Sally weighs  $50 \div 2 = 25$  kg,

hence (A).

7. Since the statements imply that there is at least one green, one blue and one red crayon, for each of the statements

all of them are green except two,

all of them are blue except two,

all of them are red except two,

to be true, there must be no more than 3 pens, one of each colour, otherwise at least one of the above statements would be false. So Mel has three crayons,

hence (A).

8. Since  $770 = 10 \times 77 = 2 \times 5 \times 7 \times 11$ , the only numbers we can choose to multiply from this set to give a possible age for a teenager is  $2 \times 7 = 14$ , so Gina's teenager must be 14,

hence (B).

9. Since Phil sits at a desk fourth from the front and third from the back, there must be 6 rows of desks.

Since there are four desks to the right of Phil's and one to the left, there must be 6 columns of desks.

There are then 6 rows and 6 columns of desks in the classroom, which is  $6 \times 6 = 36$  desks.

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10. Consider the 6 by 6 block as shown. All the outside apartments have exterior views, so we need only deal with the 16 interior squares.

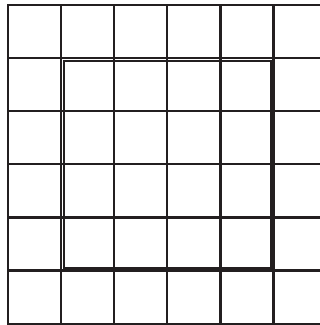
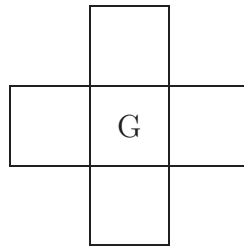


figure 1

Putting in one garden will remove one apartment and bring light to (at most) four other apartments.



This complying arrangement will deal with at most five of the internal squares and so, as  $3 \times 5 < 16$ , at least four gardens are required.

It is relatively easy to find such a solution with 4 gardens, as shown in figure 2.

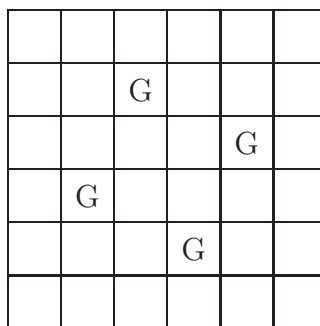


figure 2

So the smallest number of garden required is 4.