

- 1) The average of three numbers is 16.  
What is double the sum of the three numbers?
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- 2) How many factors does the number 36 have?

A	7
B	8
C	9
D	10

- 3) Jill, Jen and Joe decide to buy a car together.  
The cost of the car is £2,700.  
Jill pays twice as much as Jen. Joe pays three times as much as Jill.  
How much does Jen contribute?
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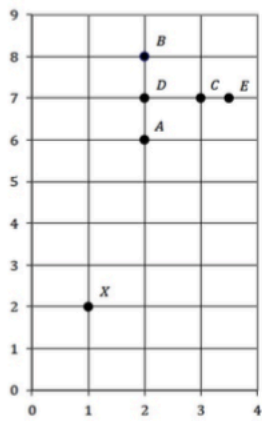
- 4) The price of a hat is reduced by half and the resulting price is reduced by 10%.  
What percentage of the original price is the final price?

A	40%
B	45%
C	50%
D	55%

- 5) I go to the gym 7 times per month.  
How many times do I go to the gym in a decade?

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- 6) Point F is a reflection of Point D in the x-axis.  
What are the coordinates of Point F?



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- 7)  $5\frac{1}{8} - 3\frac{1}{6} =$

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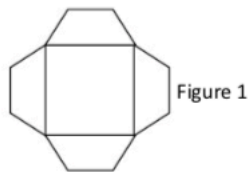
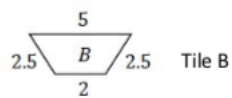
- 8)  $T < 1.5$      $T > -0.5$      $T$  is a positive integer.  
What is the value of  $T$ ?

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- 9) 60 people are seated at a table. They are seated so that there is an equal number of people on each side of the table.  
Which of the following could not be the shape of the table?

A	pentagon
B	triangle
C	octagon
D	hexagon

- 10) Figure 1 is made from one unit of Tile A and four units of Tile B.  
What is the perimeter of Figure 1?  
*All measurements are in cm.*




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- 11) Figure 1 is composed of three pentagons.  
 The perimeter of the largest pentagon is  $A$ .  
 The perimeter of the second largest pentagon is  $\frac{4}{5}$  of  $A$ .  
 The perimeter of the smallest pentagon is  $0.8(0.8A)$ .

If  $A = 100$  cm, what is the total perimeter of the three pentagons?

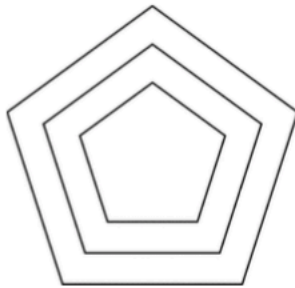
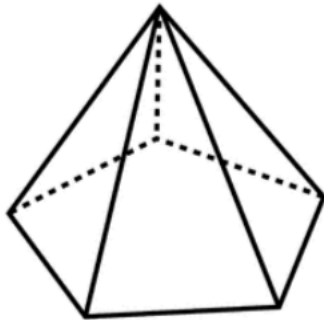


Figure 1

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- 12) How many more edges than faces does this shape have?



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- 13) The ratio  $7:12$  is equal to the ratio  $X:144$ .  
 What is  $3X$ ?

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- 14)  $t - 60 = 60$   
 $t + 60 = p$   
What is the value of  $p$ ?

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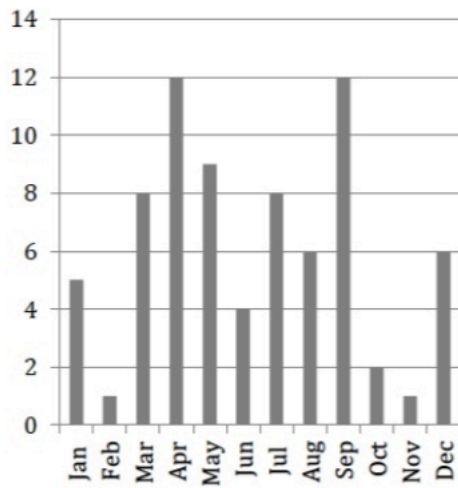
- 15) Fred and six friends evenly split the £882 cost of renting an apartment.  
How much do they each pay?

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- 16) Hannah's netball team have won 5 games and lost 8 games.  
There are 15 more games this season.  
How many of these games must Hannah's team win if they are to finish the season with an equal number of wins and losses?

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- 17) The chart below shows the number of rainy days per month in Country B.  
How many times greater was the number of rainy days in April than in October?



- 18)  $\star X = 2(X - 7) - X$   
What is  $\star 9$ ?

19) Each term in a sequence is 3 times bigger than the previous term.  
How many times bigger is the fifth term than the second term?

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20) How many days were there in total in the years 2011, 2012 and 2013?

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