

5. John had £6 left in his tuck shop account yesterday but he spent far too much today (his birthday) and he now **owes** the tuck shop £7. How much did he spend today ?

Answer

6. What is 312 minutes in hours and minutes ?

Answer

7. Peter's examination was due to start at 9.15 a.m. and the time allowed to complete the paper was 2 hours. Because he had a dentist appointment booked for 11.00 a.m. he was allowed to start the paper 20 minutes early and leave the hall as soon as he had finished. If he took $1\frac{1}{2}$ hours to complete the paper, at what time did Peter leave the hall?

Answer

8. Change 2.8 hours into minutes.

Answer

9. A young teacher's salary is £20 000 a year. If he receives a 5% increase at the end of this year, what will his salary be next year ?

Answer

10. Continue the sequences, giving the next two numbers each time :

(a) 1, 5, 9, 13, ,

(b) 2, 4, 8, 16, ,

(c) 13, 9, 5, 1, ,

(d) 1, 4, 9, 16, ,

11. Find the missing numbers :

$$24.73 \times \dots\dots\dots = 247\,300$$

$$6 \div \dots\dots\dots = 24$$

12. Five friends shared the cost of a mansion (priced at 3 million pounds) equally. How much did each of them pay ?

Answer

13.

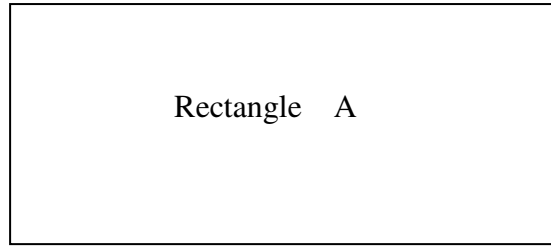


diagram not drawn
to scale

Rectangle A has length 9 cm and width 4 cm. Calculate its area.

Answer

Rectangle B (not drawn here) has length 2 cm shorter than A and width 1 cm longer.

Which rectangle has the larger area, and by how much ?

Answer

-
14. A Mars bar and a Twix together cost £1.15. If I buy a Mars bar and 4 Twix I pay £2.95. Work out the cost of each.

Answer : Mars

Twix

15. A social jogger takes 15 minutes to run 2.5 kilometres.
How long would he take to run 10 kilometres?

Answer

16. On a clock face, what is the angle between the hands at 12.15 ?
(Remember : the hour hand will have moved on since 12.00!)

Answer

17. You are told that $96 \times 43 = 4\,128$. Use this fact to write down the answers to :

(a) 960×430 Answer

(b) 9.6×430 Answer

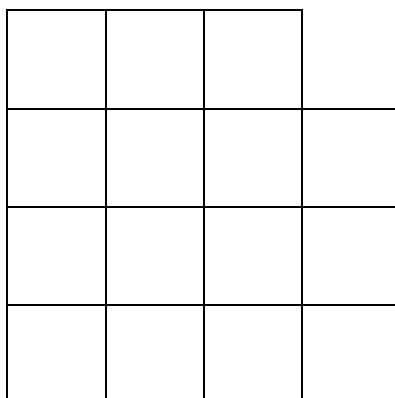
(c) $96\,000 \times 0.43$ Answer

(d) $4\,128\,000 \div 4.3$ Answer

18. I am 96 years, 96 months, 96 weeks, 96 days and 96 hours old.
How old am I (in completed years)?

Answer

19.



How many **squares** are there altogether in this diagram ?

Answer

END OF SECTION A

SECTION B

PLEASE REMEMBER THAT YOUR FULL WORKING DETAILS MUST BE SHOWN IN EVERY QUESTION !

20. What is 50% of 40% of £200 ?

Answer

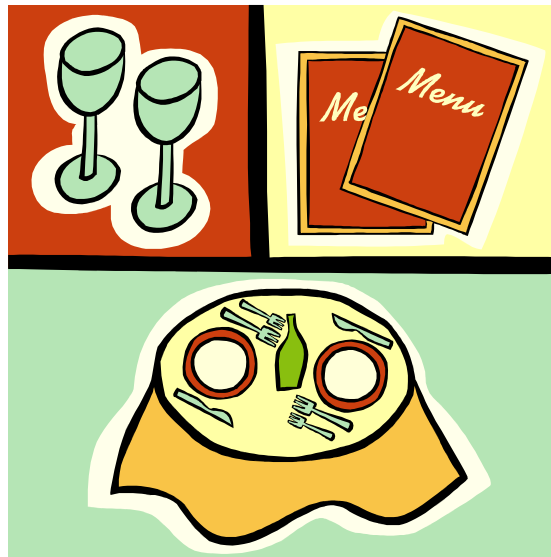
21. The five tyres of a car (four road tyres and one spare) were used equally on a car that had travelled 20 000 km. Work out the number of kilometres of use of each tyre.

Answer

22. A property owner sold two terraced houses at £99 000 each. Based on what he had paid for them, the profit on one was 10% and the loss on the other was 10%. Overall, did the property owner make a profit or loss ? Calculate the amount of profit or loss.

Answer

23.



A restaurant menu offers a choice of 2 starters (call them A and B), 3 main courses (call them C, D and E) and 2 puddings (call them F and G). Umair must choose a starter, a main course and a pudding from the menu. How many different three-course meals could he choose? (*Hint : if you are struggling, you might try to write out all the possibilities*)

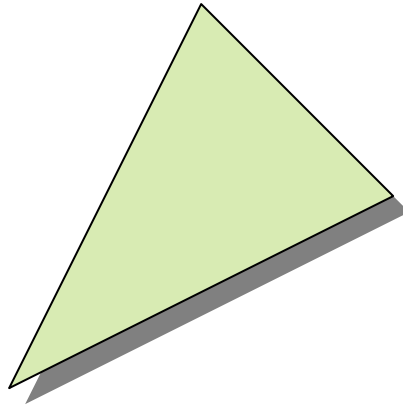
Answer

(the second part of this question is on the next page)

On a Friday night, the menu includes an extra starter (H), two extra main courses (I and J) and an extra pudding (K). How many different three-course meals could he choose on a Friday night? (*Hint : it will take far too long to write out all the possibilities – you need to try to find a way to calculate your answer*)

Answer

24.



- (a) It is impossible to construct a triangle with sides of length 2 cm, 3 cm and 7 cm. Explain why.

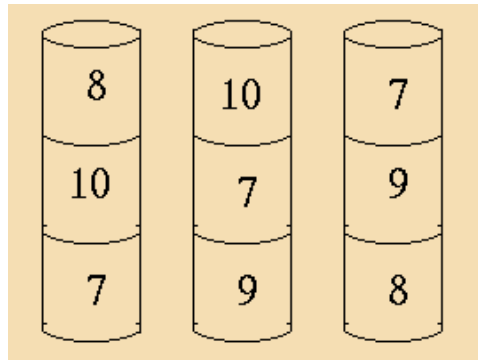
- (b) The perimeter of a triangle is the total length when the lengths of all three sides are added together. (So, if the lengths of the sides of a triangle are 4 cm, 5 cm, and 7 cm, the perimeter would be 16 cm).

If a triangle must have a perimeter of 10 cm and the length of each side (in cm) must be a whole number, how many different triangles are possible?

(You should make sure that you write down all the possibilities).

Answer

25.



At a fairground stall there are 3 piles of cans. You get 3 throws, and the number of points for each can is written on the front. On any throw, you can only knock off the top can of a pile, but the 2nd throw counts double points, and the 3rd triple. (For example, 7 followed by 9 followed by 10 would earn $7 + 18 + 30 = 55$ points). How do you get a total of exactly 50 points?

Answer

END OF EXAMINATION