# AL - KHAIR SCHOOL ENTRANCE EXAMINATION 

Mathematics
Sample Exam Paper

Time allowed: 1 hour

| Name |  |
| :---: | :--- |
| Present school |  |
| Boy/Girl |  |

## Answer all the questions

1. Do the following sums
(a) 867
(b) 925
$+952$

- 683

2. Work out $34+2906+362$

Answer:
3. $\begin{array}{r}893 \\ \times \quad \underline{27} \\ \hline\end{array}$
4. (a) $4466 \div 7=$
(b) $\underline{6572}$
0.4

Answer: (a)
(b)
5. (a) Add together
four thousand two hundred and eight AND one thousand and twenty-three.

Answer:
(b) How much is this less than 20000 ?

Answer: $\qquad$
6. How many minutes are there in $9 \frac{1}{2}$ hours?

## Answer:

7. A man bought 500 lettuce plants and after planting 12 rows with the same number in each, he had 32 left over. How many were in each row?

Answer: $\qquad$
8. $16 \times 14=224$ hence, write down the value of
(a) $1.6 \times 1.4=$

Answer:
(b) $448 \div 16=$

Answer:
9. Mariam spent $1 / 4$ of her wages on rent.

She spent 20\% of her wages on food.
She spent 0.15 of her wages on clothes
Work out the fraction of her wages that she had left.

Answer: $\qquad$
10. Here are some numbers
0.99
0.9009
0.909
0.099
0.9
(a) Which is the smallest?

Answer: $\qquad$
(b) Which is the largest?

Answer:
11. If 7 bananas cost $£ 1.23$ find the cost of 84 bananas.
$\qquad$
12. Write down the next two numbers in the following sequences
(a) $1,8,15,22$,

Answer: $\qquad$ and $\qquad$
(b) $2,3,3,8$,

Answer: $\qquad$ and $\qquad$
13. The two points $A$ and $B$ on the grid are the vertices of an isosceles triangle.
$A$ is at $(9,10)$; $B$ is at $(6,6)$.
(a) The other vertex of the isosceles triangle is at a point with whole number coordinates. What could be the coordinates of the other vertex?


Answer: ( $\qquad$ , $\qquad$ )
(b) There are several other points with whole number coordinates that could be the vertex of the isosceles triangle.
Give the co-ordinates of two more of these points.

Answer: ( $\qquad$ , $\qquad$ ) and ( $\qquad$ , $\qquad$ )
14.

(a) What is the name of this shape?

Answer: $\qquad$
(b) Calculate its area

Answer: $\qquad$
15. Sakinah drew and isosceles triangle, one of the (internal) angles was $120^{\circ}$. What were the sizes of the other two angles?

Answer:
16. Hafsah thinks of a number, she halves it and then subtracts 9. If the answer she gets is 12, what was the original number she was thinking of?

Answer: $\qquad$
17. Hasan is 150 cm tall. One sunny afternoon his shadow was 2 m long. His father, who is 180 cm tall, was standing next to him. How long was his shadow?

## Answer:

18. Ali, Ahmed and Akram have to share out some marbles.

The ratio of Akram's marbles to Ali's marbles is 1:2.
The ratio of Ali's marbles to Ahmed's marbles is 1:2.
What is the ratio of Ahmed's marbles to Akram's marbles?
19. Philip has 10 stick insects. These are their lengths in cm .
$7.1 \quad 6.8$
8.5
9.8
4.4
6.5
$8.1 \quad 5.2$
6.6
8.0

What is the mean length of his stick insects?

## Answer:

20. Mr Khan has forgotten the code for his safe. He knows that:

- The code is a three-digit number below 200
- The number appears in the 8 times table
- The three digits add up to 13

Which of these is the code for the safe?
(a) 175
(b) 139
(c) 168
(d) 184
(e) 256

Answer:
21. What are the missing digits in this addition calculation?
22. Four books and two toys cost $£ 50$. One book and two toys cost $£ 29$. What is the cost of one toy?

Answer:
23. How long would it take to go 57 miles at 12 miles an hour?

Answer:
24. Complete the boxes with,,$+- \times, \div$ to make the statements correct. The first one has been done for you as an example.

25. If the day after the day after tomorrow is Wednesday, what is the day before the day before yesterday?

Answer:
26. The rule $\mathbf{a}^{*} \mathbf{b}$ means $\frac{a+b}{a \times b}$

So, following this rule,

$$
2 * 3=\frac{2+3}{2 \times 3}=\frac{5}{6}
$$

And where possible, the fraction answer must be simplified, for example

So, $2 * 4=\frac{2+4}{2 \times 4}=\frac{6}{8}=\frac{3}{4}$

Following this rule, work out
(a) $5 * 6$

Answer:
(b) $30 * 60$

## Answer:

(c) If $a * a=1 \quad$ what is the value of $a$ ?

Answer:

You have reached the end of the test. Please check your work

