|  |  | partment of $f$ thematics | INDIAN SCHOOL AL WADI AL KABIR <br> Class VI, Mathematics Worksheet 1- ALGEBRA |  |  |  |  |  |
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| OBJECTIVE TYPE (1 Mark) |  |  |  |  |  |  |  |  |
| Q.1. | Which of the following is an algebraic expression? |  |  |  |  |  |  |  |
|  | A | 2 | B | $x y$ | C | 2+5 | D | none of these. |
| Q.2. | No. of matchsticks are use in a pattern of letter $F$ |  |  |  |  |  |  |  |
|  | A | 4 | B | 10 | C | 12 | D | 2 |
| Q.3. | There are some expression given below. Which of these is an equation with variable. |  |  |  |  |  |  |  |
|  | A | $x-5>9$ | B | $8+5=9$ | C | $9 x<5$ | D | $2 x+1=15$ |
| Q.4. | If Maya's present age is $\boldsymbol{x}$ years then what will be her age two years ago. |  |  |  |  |  |  |  |
|  | A | $x+2$ | B | $\boldsymbol{x}+5$ | C | $\boldsymbol{x}-2$ | D | $x$ |
| Q.5. | Which of the following represent $6 \times \mathrm{b}$ ? |  |  |  |  |  |  |  |
|  | A | 6 b | B | $\frac{6}{b}$ | C | $6+\mathrm{b}$ | D | 6-b |
| Q.6. | If $\boldsymbol{x}$ takes the value 2 , then the value of $\boldsymbol{x}+10$ is |  |  |  |  |  |  |  |
|  | A | 20 | B | 12 | C | 5 | D | 8 |
| Q.7. | Which of the following equations has $x=2$ as a solution? |  |  |  |  |  |  |  |
|  | A | $x+2=5$ | B | $x-2=0$ | C | $2 x+1=0$ | D | $x+3=6$ |
| Q.8. | For any two integers $x$ and $y$, which of the following suggests that operation of addition is commutative? |  |  |  |  |  |  |  |
|  | A | $x+y=y+x$ | B | $x+y>x$ | C | $x-y=y-x$ | D | $x y=y x$ |
| Q.9. | In algebra, letters may stand for |  |  |  |  |  |  |  |
|  | A | known quantities | B | unknown quantities | C | fixed numbers | D | None of these |
| Q. 10 | The expression obtained when $\boldsymbol{x}$ is multiplied by 2 and then subtracted from 3 is |  |  |  |  |  |  |  |
|  | A | $2 x-3$ | B | $2 x+3$ | C | $3-2 x$ | D | $3 x-2$ |
| Q. 11 | Kanta has p pencils in her box. She puts q more pencils in the box. The total number of pencils with her are |  |  |  |  |  |  |  |
|  | A | $p+q$ | B | pq | C | P-q | D | $\frac{p}{q}$ |
| Q. 12 | Think of a number and on adding 13 to it, I get 27. Equation for this is |  |  |  |  |  |  |  |
|  | A | $\boldsymbol{x}-27=13$ | B | $x-13=27$ | C | $x+27=13$ | D | $x+13=27$ |


| Q. 13 | If a notebook costs $t$ p and a pencil costs Rs. 3, then the total cost (in Rs.) of two notebooks and one pencil. |  |  |  |  |  |  |  |
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|  | A | $5+\mathrm{p}$ | B | $6+\mathrm{p}$ | C | $2 \mathrm{p}+3$. | D | $3 p+2$ |
| Q. 14 | p is divided by 11 and the result is added to 10 . |  |  |  |  |  |  |  |
|  | A | $\frac{p}{11}=10$ | B | $\frac{p}{11}>10$ | C | $\frac{p}{11}+10=0$ | D | $\frac{p}{11}+10$ |
| Q. 15 | Translate each of the following statements into an equation. " The diameter (d) of a circle is twice its radius (r)." |  |  |  |  |  |  |  |
|  | A | $\mathrm{d}=2+\mathrm{r}$ | B | $d=2-r$ | C | $d>2+r$ | D | $\mathrm{d}=2 \mathrm{r}$ |
| Q. 16 | Which of the following is an equation? |  |  |  |  |  |  |  |
|  | A $\quad \boldsymbol{x}-3>0$ <br> The number of ro |  | B | $x+3<0$ | C | $\boldsymbol{x}$ | D | $x+3=0$ |
| Q. 17 | The number of rooms on the ground floor of a building is 12 less than the twice of the number of rooms on first floor. If the first floor has $\boldsymbol{x}$ rooms, how many rooms does the ground floor has? |  |  |  |  |  |  |  |
|  | A $\mathrm{y}=2 \boldsymbol{x}-2$. |  | B | $y=2 x+12$ | C | $y=2 x-12$. | D | $y=2 x$ |
| Q. 18 | A starts his car from Delhi at 6.00 am to Amritsar. The uniform speed of his car is $x \mathrm{~km} / \mathrm{h}$. At 12.00 noon, he finds that he is still 50 km away from Amritsar. Find the distance between Delhi and Amritsar. |  |  |  |  |  |  |  |
|  | A $(6 x \times 50) \mathrm{km}$ |  | B | $(6 x-50) \mathrm{km}$ | C | $(6 x+50) \mathrm{km}$ | D | $6 x \mathrm{~km}$ |
| Q. 19 | Here is a pattern of houses with matchsticks: <br> Write the general rule for this pattern. |  |  |  |  |  |  |  |
|  | A | $6+\mathrm{h}$ | B | 6-h | C | 6h | D | None of these |
| Q. 20 | If m is a whole number less than 5 , complete the table and by inspection of the table, find the solution of the equation $2 m-5=-1$. |  |  |  |  |  |  |  |
|  | $m$ |  |  |  |  |  |  |  |
|  | 2m-5 |  |  |  |  |  |  |  |
| Q21. | Pick out the solution from the value given in the brackets against each equation. |  |  |  |  |  |  |  |


| Q22. | Case study: Ravi went to the market to purchase some household items. He asks the shopkeeper the prices of different items, If the cost of a bread loaf is ₹ ' $x$ ', find the cost of: <br> a) butter which is ₹ 8 more than the cost of the bread loaf. <br> b) 1 litre milk that is 3 times the cost of the bread loaf. <br> c) 1 kg rice that is ₹ 75 more than twice the cost of the bread loaf. <br> d) Price of an Apple juice can 3 more than is $1 / 2$ of the cost of the bread loaf. <br> e) d) a pen that costs ₹ 15 less than four times the cost of the bread loaf. |
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| Q23. | Case study: Sarita's went to her grandparents' house. She was curious to know the ages of different members of her family. <br> If Sarita's present age is ' $y$ ' years then, <br> (i) her grandfather's age is 8 times of her age. <br> (ii) her grandmother is 2 years younger than grandfather. <br> (iii) Her father's age is 30 years more than her age. <br> (iv) Mother's age is 3 years less than that of her father <br> (v) Her brother is two years younger. |
| Q24. | Observe the picture and answer the following questions <br> 1. Write equation for the given picture. <br> 2. What be solution of the equation. |
| Q25. | Translate each of the following statements into an equation, using $\boldsymbol{x}$ as the variable. <br> (a) 13 subtracted from twice a number gives 3. <br> (b) Two-third of a number is 12. <br> (c) 9 added to twice a number gives 13 . <br> (d) 1 subtracted from one-third of a number gives 1 . |

