Cotuz

Name: _____ Date: _____

Exponents and Expressions with a Variable

Grade 6 · Ages 11-12 · Math · Expressions & Equations · ★★

Find the value of each expression for the given value of x and write it on the line: do the brackets, the square and the multiplication or division before adding and subtracting. For a multiple-choice question, circle the expression that matches the words.

1. Find the value of $x^2 - 13$ when $x = 7$.

_____

2. Find the value of $5x + 14$ when $x = 10$.

_____

3. Find the value of $x \div 3 + 20$ when $x = 12$. _____

4. Find the value of $8x - 2$ when $x = 4$.

_____

5. Find the value of $9(x + 7)$ when $x = 4$.

_____

6. Find the value of $60 - 8x$ when $x = 5$.

_____

7. Find the value of $x^2 + 16$ when $x = 3$.

_____

8. Find the value of $5x - 2$ when $x = 9$.

_____

9. Find the value of $x \div 3 + 2$ when $x = 18$.

_____

10. Find the value of $4x + 15$ when $x = 3$.

_____

11. Which expression means twice the sum of n and 5?

(A) $2(n + 5)$ (B) $2(n - 5)$
(C) $2 + n + 5$ (D) $2n + 5$

12. Find the value of $8(x + 3)$ when $x = 11$.

_____

13. Find the value of $74 - 9x$ when $x = 8$.

_____

14. Which expression means 4 less than 3 times n?

(A) $3n - 4$ (B) $4 - 3n$
(C) $3n + 4$ (D) $3(n - 4)$

15. Find the value of $x^2 + 8$ when $x = 8$.

_____

16. Which expression means 7 less than n squared?

(A) $(n - 7)^2$ (B) $7 - n^2$
(C) $n^2 - 7$ (D) $n^2 + 7$

17. Find the value of $2x + 19$ when $x = 11$.

_____

18. Find the value of $x \div 5 + 9$ when $x = 20$.

_____

19. Which expression means 2 less than n?

(A) $n \div 2$ (B) $n - 2$
(C) $2 - n$ (D) $n + 2$

20. Find the value of $68 - 6x$ when $x = 8$.

_____

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ANSWER KEY

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1. Find the value of $x^2 - 13$ when $x = 7$.
36

2. Find the value of $5x + 14$ when $x = 10$.
64

3. Find the value of $x \div 3 + 20$ when $x = 12$. **24**

4. Find the value of $8x - 2$ when $x = 4$. **30**

5. Find the value of $9(x + 7)$ when $x = 4$.
99

6. Find the value of $60 - 8x$ when $x = 5$.
20

7. Find the value of $x^2 + 16$ when $x = 3$.
25

8. Find the value of $5x - 2$ when $x = 9$. **43**

9. Find the value of $x \div 3 + 2$ when $x = 18$.
8

10. Find the value of $4x + 15$ when $x = 3$.
27

11. Which expression means twice the sum of n and 5?
Answer: (A) 2(n + 5)

12. Find the value of $8(x + 3)$ when $x = 11$.
112

13. Find the value of $74 - 9x$ when $x = 8$. **2**

14. Which expression means 4 less than 3 times n?
Answer: (A) 3n – 4

15. Find the value of $x^2 + 8$ when $x = 8$. **72**

16. Which expression means 7 less than n squared?
Answer: (C) $n^2 - 7$

17. Find the value of $2x + 19$ when $x = 11$.
41

18. Find the value of $x \div 5 + 9$ when $x = 20$. **13**

19. Which expression means 2 less than n?
Answer: (B) n – 2

20. Find the value of $68 - 6x$ when $x = 8$.
20