

Chapter 2 — Evaluating Algebraic Expressions

Worksheet B: Independent Practice

Name: _____ Grade: _____ Date: _____

1. A taxi charges a \$4.50 starting fee and \$1.25 per kilometre. The fare is represented by $4.50 + 1.25k$. Find the fare for $k=8$.

2. Evaluate: $2m^2 - 3m + 1$ when $m=4$

3. Evaluate: $(2q)^2 - 3$ when $q=4$

4. A rectangle has length $2x+3$ and width $x-1$. The perimeter is represented by $2(2x+3) + 2(x-1)$. Find the perimeter when $x=5$.

5. Evaluate: n^2+4n-5 when $n=-3$

6. Evaluate: $(-s)^2+2s$ when $s=-4$

7. The temperature in Fahrenheit is represented by $F=1.8C+32$. Find the Fahrenheit temperature when $C=-10$.

8. Evaluate: $2a^2-3ab+b^2$ when $a=3$, $b=-2$

9. A student evaluates $4x^2-1$ when $x=-2$ and gets -17. Identify the error and write the correct value.

10. Evaluate: $6x-1$ when $x=2$

11. Evaluate: $5a+2b$ when $a=3$, $b=-4$

12. Evaluate: $3p^2-2p$ when $p=-2$

13. Evaluate: $3(u-1)^2$ when $u=5$

14. Evaluate: $-r^2+5r$ when $r=-3$

15. Evaluate: $4t^2 - 2(t+3)$ when $t=2$

16. A company's profit is represented by $45n - 120$ where n is the number of items sold. Find the profit when $n=7$.

17. Evaluate: $5x^2 + 2y^2$ when $x=-1$, $y=3$

18. Compare the values of the following expressions when $m=3$: $2m^2$ and $(2m)^2$

19. A student evaluates $3p+2q$ when $p=-2$, $q=-5$ and writes: $-6+10=4$. Identify the sign error and write the correct value.

20. Explain why brackets are necessary when evaluating x^2 when $x=-7$
