

Warm Up:

Carson has 8 dinosaur toys. He gets two new dinosaurs each month. Write an expression to show how many dinosaurs Carson has after  $m$  months.

$$8 + 2m$$

To buy concert tickets at Red Rocks online, it costs \$40 per ticket, a \$10 convenience fee, per purchase, for purchasing online, and a \$2 facility charge per purchase. Write an expression to show your total based on how many tickets you purchase  $t$ .

$$40t + 12$$

## Evaluating

$4y^2 + x$  when  $x = -4$  and  $y = -2$

$$4(-2)^2 + (-4) = 4(4) + 4$$

$a^3 - 5b + 8$  when  $a = -1$  and  $b = 5$

$$16 + 4 = 20$$

$$(-1)^3 - 5(5) + 8 = -1 - 25 + 8 = -18$$

$-2^2$	$(-2)^2$	$-(2)^2$	<del><math>-2^2</math></del>
$-1 \cdot 2^2$		$\downarrow$	
$-4$	$4$	$-4$	$-4$

$-2^3$	$(-2)^3$	$-(2)^3$	$(-2^3)$
$-8$	$-8$	$-8$	$-8$

$$-2 \cdot -2 \cdot -2$$

$$\sqrt{4} \cdot -2$$

	1	2	3	4	5	6
1	Write an expression similar to those on this sheet with an answer of -5. Switch and check your partner's.	$x^2+4y$ $x=-3, y=5$	$7(-a+b^2)$ $a=5, b=-1$	$6x^3-y+2z$ $x=-1, y=-3, z=1$	$\frac{6a-2}{b}$ $a=-3, b=10$	$-(5x^2-2)+xy$ $x=-3, y=4$
2	$-x-3y$ $x=-8, y=-7$	Write an expression similar to those on this sheet with an answer of 10. Switch and check your partner's.	$-x^2-y$ $x=-2, y=-1$	$a-(2b+a^3)$ $a=-2, b=5$	$x^3-5y^2$ $x=-1, y=-2$	$\frac{4-(b^2+4)}{2a}$ $a=4, b=-4$
3	$-2(a^2+5b)$ $a=-2, b=2$	$-y^2-2x$ $x=-3, y=-3$	Write an expression similar to those on this sheet with an answer of 7. Switch and check your partner's.	$(6x^2-2y)^2$ $x=-1, y=4$	$3-\frac{6x^2}{y}$ $x=-2, y=8$	$7b^2+2(a-5)$ $a=3, b=2$
4	$-2y^2+8x-z$ $x=3, y=4, z=-7$	$8-(2a+b^2)$ $a=1.5, b=3$	$(-2x+y^3)^2$ $x=0.5, y=-1$	Write an expression similar to those on this sheet with an answer of 12. Switch and check your partner's.	$(ab)^2-b$ $a=3, b=-2$	$3(5x)^2$ $x=-2$
5	$\frac{2(-a+4)}{b}$ $a=10, b=6$	$-x^3+y^2+2$ $x=3, y=2$	$4y - \frac{x^2}{y}$ $x=-4, y=2$	$(a-b)^3+11$ $a=6, b=3$	Write an expression similar to those on this sheet with an answer of -3. Switch and check your partner's.	$\frac{2}{3}(4x-6)+2y$ $x=-3, y=6$
6	$5xy$ $x=-1, y=11$	$\frac{4y}{5x-y^2}$ $x=5, y=-5$	$b^2+4(a-6)$ $a=3, b=6$	$(2x^2)(y^2-3)$ $x=5, y=-3$	$\frac{3}{4}(2x-12)-3y$ $x=8, y=1$	Write an expression similar to those on this sheet with an answer of 20. Switch and check your partner's.