Task card 1 Piecewise Functions: Choosing the...

Find f(-2).

$$f(x) = \begin{cases} -3x + 2 & \text{if } x < -2 \\ 5 & \text{if } -2 \le x \le 3 \\ -3x + 3 & \text{if } x > 3 \end{cases}$$

Task card 2 Piecewise Functions: Choosing the...

Find f(-3).

$$f(x) = \begin{cases} 2x - 6 & \text{if } x \le -3 \\ -2x - 7 & \text{if } x > -3 \end{cases}$$

Task card 3 Piecewise Functions: Choosing the...

Find f(1).

$$f(x) = \begin{cases} 4x - 8 & \text{if } x \le -3 \\ 2x^2 + 1 & \text{if } x > -3 \end{cases}$$

Task card 4 Piecewise Functions: Choosing the...

Find f(-3) + f(-5).

$$f(x) = \begin{cases} -2x + 1 & \text{if } x \le -4 \\ 4x + 6 & \text{if } x > -4 \end{cases}$$

Task card 5 Piecewise Functions: Choosing the...

Find the x-value where f(x) = -17.

$$f(x) = \begin{cases} -3 & \text{if } x < -2 \\ -5x - 7 & \text{if } x \ge -2 \end{cases}$$

Task card 6 Piecewise Functions: Choosing the...

A babysitter earns $15 per hour for up to 5 hours, and $18 for each hour over 5. Her pay is P(h) for h hours. How many dollars does she earn for 1 hour?

$$P(h) = \begin{cases} 15h & \text{if } 0 \le h \le 5 \\ 75 + 18(h - 5) & \text{if } h > 5 \end{cases}$$

Task card 7 Piecewise Functions: Choosing the...

Find f(-5).

$$f(x) = \begin{cases} -5x - 2 & \text{if } x < -1 \\ -x - 8 & \text{if } -1 \le x \le 1 \\ -2x - 6 & \text{if } x > 1 \end{cases}$$

Task card 8 Piecewise Functions: Choosing the...

Which piece of f do you use to find f(-2)?

$$f(x) = \begin{cases} 2x + 1 & \text{if } x \le 2 \\ -2x + 8 & \text{if } x > 2 \end{cases}$$

Task card 9 Piecewise Functions: Choosing the...

Find f(0).

$$f(x) = \begin{cases} -4x + 8 & \text{if } x < -5 \\ -6 & \text{if } -5 \le x \le -1 \\ 5x + 4 & \text{if } x > -1 \end{cases}$$

Task card 10 Piecewise Functions: Choosing the...

Find f(-4).

$$f(x) = \begin{cases} -4x + 7 & \text{if } x < -4 \\ -x + 3 & \text{if } x \ge -4 \end{cases}$$

Task card 11 Piecewise Functions: Choosing the...

Find f(7).

$$f(x) = \begin{cases} x + 4 & \text{if } x \le 3 \\ x^2 + 4 & \text{if } x > 3 \end{cases}$$

Task card 12 Piecewise Functions: Choosing the...

Find f(1) + f(-6).

$$f(x) = \begin{cases} 2x + 4 & \text{if } x < -2 \\ -x + 4 & \text{if } x \ge -2 \end{cases}$$

Task card 13 Piecewise Functions: Choosing the...

Find the x-value where $f(x) = -10$.

$$f(x) = \begin{cases} 6 & \text{if } x \le 0 \\ -2x - 2 & \text{if } x > 0 \end{cases}$$

Task card 14 Piecewise Functions: Choosing the...

A phone plan charges $19 each month for up to 2 gigabytes, plus $3 for each gigabyte over 2. The cost is C(g). How many dollars does 7 gigabytes cost?

$$C(g) = \begin{cases} 19 & \text{if } 0 < g \le 2 \\ 19 + 3(g - 2) & \text{if } g > 2 \end{cases}$$

Task card 15 Piecewise Functions: Choosing the...

Find f(-5).

$$f(x) = \begin{cases} 4x + 1 & \text{if } x < -5 \\ -4x + 3 & \text{if } -5 \le x \le -1 \\ 5x - 1 & \text{if } x > -1 \end{cases}$$

Task card 16 Piecewise Functions: Choosing the...

Which piece of f do you use to find f(0)?

$$f(x) = \begin{cases} -x - 4 & \text{if } x \le 3 \\ 2x - 1 & \text{if } x > 3 \end{cases}$$

Task card 17 Piecewise Functions: Choosing the...

Find f(8).

$$f(x) = \begin{cases} 3x - 4 & \text{if } x < 0 \\ 5x - 8 & \text{if } 0 \le x \le 3 \\ -3x & \text{if } x > 3 \end{cases}$$

Task card 18 Piecewise Functions: Choosing the...

Find f(0).

$$f(x) = \begin{cases} -4x & \text{if } x < 0 \\ 5x + 7 & \text{if } x \ge 0 \end{cases}$$

Task card 19 Piecewise Functions: Choosing the...

Find f(0).

$$f(x) = \begin{cases} 5x - 8 & \text{if } x \le -4 \\ 2x^2 + 2 & \text{if } x > -4 \end{cases}$$

Task card 20 Piecewise Functions: Choosing the...

Find f(9) + f(2).

$$f(x) = \begin{cases} -2x + 1 & \text{if } x < 4 \\ 2x - 1 & \text{if } x \ge 4 \end{cases}$$

Task card 21 Piecewise Functions: Choosing the...

Find the x-value where f(x) = -6.

$$f(x) = \begin{cases} 2x - 5 & \text{if } x \le -3 \\ x - 5 & \text{if } x > -3 \end{cases}$$

Task card 22 Piecewise Functions: Choosing the...

A babysitter earns $16 per hour for up to 3 hours, and $21 for each hour over 3. Her pay is P(h) for h hours. How many dollars does she earn for 5 hours?

$$P(h) = \begin{cases} 16h & \text{if } 0 \le h \le 3 \\ 48 + 21(h - 3) & \text{if } h > 3 \end{cases}$$

Task card 23 Piecewise Functions: Choosing the...

Find f(-4).

$$f(x) = \begin{cases} -5x - 2 & \text{if } x < -2 \\ 0 & \text{if } -2 \le x \le 3 \\ 5x - 8 & \text{if } x > 3 \end{cases}$$

Task card 24 Piecewise Functions: Choosing the...

Which piece of f do you use to find f(0)?

$$f(x) = \begin{cases} -2x - 1 & \text{if } x \le 1 \\ 5x + 3 & \text{if } x > 1 \end{cases}$$

Piecewise Functions: Choosing the Right Piece Task Cards

Recording sheet · Grade 9 · Each function is shown with a brace; its pieces are numbered from the top, 1, 2, 3. When a question asks which piece to use, answer with that number. Otherwise write the value as a number.

Scan to check your answers

Name: _____ Date: _____

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Piecewise Functions: Choosing the Right Piece Task Cards: Answer Key

Grade 9 · Hard

The answers online

1. 5	**2.** -12	**3.** 3
4. 5	**5.** 2	**6.** 15
7. 23	**8.** 1	**9.** 4
10. 7	**11.** 53	**12.** -5
13. 4	**14.** 34	**15.** 23
16. 1	**17.** -24	**18.** 7
19. 2	**20.** 14	**21.** -1
22. 90	**23.** 18	**24.** 1