

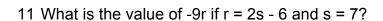
6 If 
$$11/17 = 11/(s+4)$$
, what is s?

7 If 
$$7/11 = 7/(13-v)$$
, what is v?

8 Find the value of 
$$G + (H^2)/72$$
 when  $G=20$  and  $H=18$ .

9 If 
$$y = 5x^2 + 10x - 10$$
, what is the value of y when  $x = 2$ ?

10 What is the value of 11t if 
$$t = 8x + 9$$
 and  $x = 6$ ?



12 What is the value of -5t if 
$$t = -7u + 2$$
 and  $u = 4$ ?

13 Let 
$$f(x) = x - 8$$
, and let  $g(x) = (x^2 - 64)/(x + 8)$ . What is the difference between these two functions?

1 ANSWER: True	
2 ANSWER: $x \ge 7$ and $x \le -2$ . EXPLANATION: Add $x^2$ to both sides and subtract 1 from both sides of the equation, and you get $0 \le x^2 - 5$ you get $0 \le (x - 7)(x + 2)$ . The right side of the equation equals 0 when it is greater than 0 when $x \ge 7$ or $x \le -2$ .	5x - 14. Factor, and
3 ANSWER: 3. EXPLANATION: Begin by adding 10 to both sides of the yields 8x = 24. Then divide both sides by 8 to get x = 24/8. Finally, confraction to the correct form, 3.	-
4 ANSWER: 9(g-9). EXPLANATION: The problem asks for the product obviously 9f. However, it asks for this sum in terms of g. Since we knothen f = g-9, and we can use this equation to substitute for f to get the a	w that $9 + f = g$ ,
5 ANSWER: (w + 4)^2 = 4w. EXPLANATION: The sum of w and 4 is sir square it, we must put parentheses around it, because raising a numbe higher in the order of operations than adding. In other words, if we wrot 4 would be squared. To finish, we simply write an equals sign (=), and w and 4, which is simply 4w.	r to a power is te w + 4^2, only the

6	ANSWER: 13. EXPLANATION: Because the numerators on both sides of the equals sign are the same, the denominators must also be the same. Therefore, we simply need to solve the equation s+4=17.
7	ANSWER: 2. EXPLANATION: Because the numerators on both sides of the equals sign are the same, the denominators must also be the same. Therefore, we simply need to solve the equation 24-v=11.
8	ANSWER: 24 1/2. EXPLANATION: Notice that H (18) goes into the denominator of the fraction exactly 4 times. Therefore, the fraction reduces to 18/4. Add this to the value of G (20) to obtain the answer.
9	ANSWER: 30
10	ANSWER: 627. EXPLANATION: If $t = 8x + 9$ and $x = 6$ , then we substitute 6 for x and find that $t = 8 \times 6 + 9$ , or 57. Since the question asks us to find the value of 11t, we simply multiply 11 by 57 to get the answer.

11	ANSWER: -72. EXPLANATION: If $r = 2s - 6$ and $s = 7$ , then we substitute 7 for s and find that $r = 2 \times 7 - 6$ , or 8. Since the question asks us to find the value of -9r, we simply multiply 9 by 8 to get the answer.
12	ANSWER: 130. EXPLANATION: If $t = -7u + 2$ and $u = 4$ , then we substitute 4 for u and find that $t = -7 \times 4 + 2$ , or -26. Since the question asks us to find the value of -5t, we simply multiply -5 by -26 to get the answer.
13	ANSWER: The functions are identical, other than $g(x)$ being undefined where $x=-8$ EXPLANATION: Divide the denominator of $g(x)$ into the numerator of $g(x)$ to see that the functions appear to be identical. However, note that $g(x)$ is undefined when the denominator is 0, because division by 0 is undefined.
14	ANSWER: 1. EXPLANATION: By the definition of the function, 2 @ $4 = 2^4 \div 4^2$ . We know that $2^4 = 16$ , and $4^2 = 16$ . We then divide to get the answer.
15	ANSWER: True. EXPLANATION: Since the numbers on both sides of the = symbol are the same, this is true.

Please e-mail comments and suggestions to: edu@ezlink.com