

Exercise Set 2 (No Calculator)

1

If bag A weighs 4 pounds 5 ounces and bag B weighs 6 pounds 2 ounces, how much heavier, in ounces, is bag B than bag A? (1 pound = 16 ounces)

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2

If $\frac{3a+b}{b} = \frac{7}{5}$, what is the value of $\frac{a}{b}$?

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3

If $x - 2y = 10$ and $x \neq 0$, what is the value of $\frac{2x}{y+5}$?

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4

If $a - b = 4$ and $a^2 - b^2 = 3$, what is the value of $a + b$?

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5

If 6 gricks are equivalent to 5 merts, then 2 merts are equivalent to how many gricks?

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6

If the function $\{x\}$ is defined by the equation $\{x\} = (1 - x)^2$, what is the value of $\{4\}$?

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7

If $\frac{a+b}{b} = 3$ and $\frac{a+c}{c} = 5$, what is the value of $\frac{b}{c}$?

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8

$$(x - 9)(x - a) = x^2 - 4ax + b$$

In the equation above, a and b are constants. If the equation is true for all values of x , what is the value of b ?

- A) -27
- B) -12
- C) 12
- D) 27

9

If $\frac{5}{x} + \frac{7}{5} = 1$, what is the value of x ?

- A) $-\frac{25}{2}$
- B) -7
- C) $-\frac{24}{7}$
- D) $-\frac{7}{5}$

10

$$(p + 2)^2 = (p - 5)^2$$

The equation above is true for which of the following values of p ?

- A) -2 and 5
- B) 2 and -5
- C) 1.5 only
- D) 5 only

11

If $\frac{3x}{m - nx} = 2$ for all positive values of m and n , then which of the following is equal to x ?

- A) $\frac{2m - 2n}{3}$
- B) $\frac{2m - 3}{2n}$
- C) $\frac{3 + 2n}{2m}$
- D) $\frac{2m}{3 + 2n}$