

## Exercise Set 5 (Calculator)

10

If  $\frac{x}{5} - \frac{3}{x} = 2$ , what is the value of  $x^2 - 10x$ ?

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11

For how many positive integer values of  $k$  is  $\frac{1}{10k} > 0.001$ ?

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12

If  $g(x) = x^2 - 9x + 18$  and  $h(x) = \frac{g(x)}{x^2 + 3}$ , what is the value of  $h(9)$ ?

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13

If  $\frac{1}{x+1} + \frac{1}{x-1} = 9$ , what is the value of  $\frac{9x}{x^2-1}$ ?

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14

If  $\frac{c}{c-1} \div \frac{c+1}{2c} = \frac{10}{c^2-1}$ , what is the value of  $c^2$ ?

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15

If  $\frac{4x^2+1}{2x+1} = 2x-1 + \frac{a}{2x+1}$  for all values of  $x$ , what is the value of  $a$ ?

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16

Which of the following is equivalent to  $\frac{1}{b} - \frac{b^2}{2}$  for all positive values of  $b$ ?

- A)  $\frac{b^2-1}{2-b}$
- B)  $\frac{b^2-1}{2b}$
- C)  $\frac{b^3-2}{2b}$
- D)  $\frac{2-b^3}{2b}$