Exercise Set 3 (Calculator)

12

If the points (2, 4), (5, k), and (8, 20) are on the same line, what is the value of k?

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Line l has a slope of 3 and a y-intercept of -4. What is its x-intercept?

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If $f(-1) = 1$ and $f(3) = 2$ and f is a linear function, what is the slope of the graph $y = f(x)$?

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If $f(-1) = 1$ and $f(3) = 2$ and f is a linear function, what is $f(5)$?

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In the xy-plane, the graph of line n has an x-intercept of $2b$ and an y-intercept of $-8b$, where $b \neq 0$. What is the slope of line n?

17

If $\frac{2}{x} + \frac{2}{5x} = 4$, what is the value of x?

18

If the line $3x - 2y = 12$ is graphed in the xy-plane, what is its x-intercept?

19

If the graphs of the equations $5x - 2y = 5$ and $6x + ky = 9$ are perpendicular, what is the value of k?

20

The net profit for the sales of a product is equal to the total revenue from the sales of that product minus the total cost for the sales of that product. If a particular model of calculator sells for \$98, and the cost for making and selling n of these calculators is $\$(35n + 120{,}000)$, which of the following equations expresses the net profit in dollars, P, for making and selling n of these calculators?

A) $P = 63n - 120{,}000$

B) $P = 63n + 120{,}000$

C) $P = 63(n - 120{,}000)$

D) $P = 63(n + 120{,}000)$

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Which of the following represents the equation of the line with an x-intercept of 5 and a y-intercept of 6?

A) $y-6=-\frac{6}{5}(x-5)$

B) $y-6=-\frac{5}{6}(x-5)$

C) $y-6=-\frac{6}{5}x$

D) $y-6=-\frac{5}{6}x$

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x	2	3	4
$f(x)$	a	8	b

The table above shows several ordered pairs corresponding to the linear function f. What is the value of $a+b$?

A) 12

B) 16

C) 20

D) It cannot be determined from the information given.