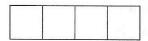
## **Exercise Set 3 (Calculator)**

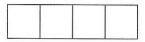
12

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



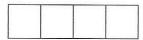
13

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



14

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



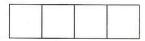
15

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



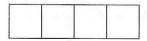
16

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)

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

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

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

x	2	3	4
f(x)	а	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.