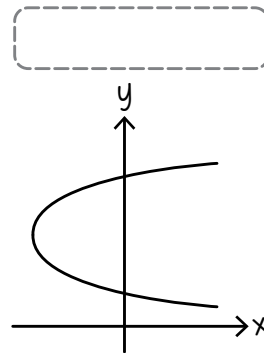
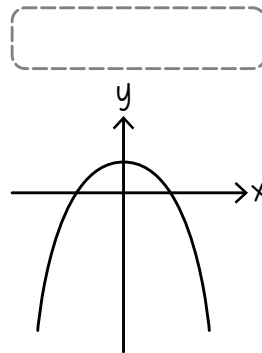
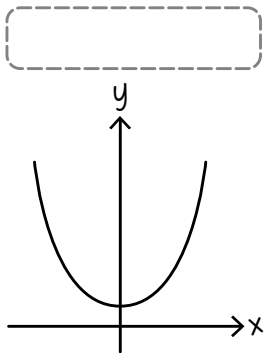
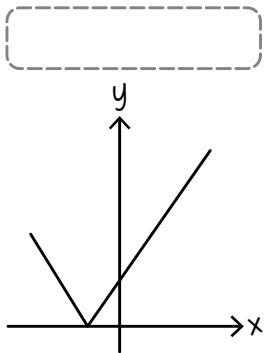
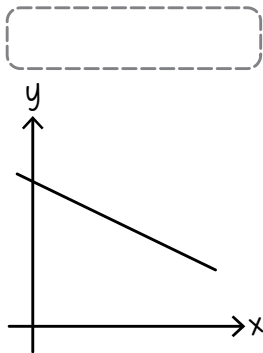
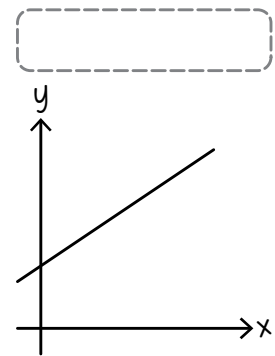
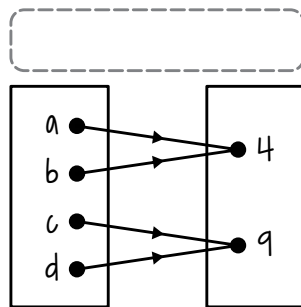
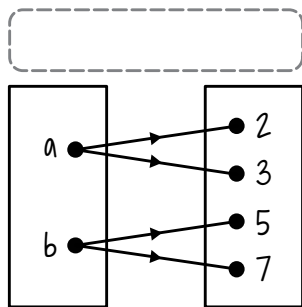
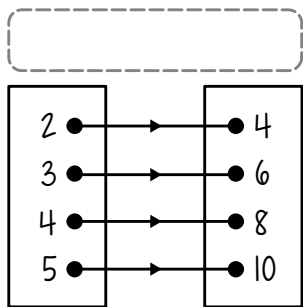


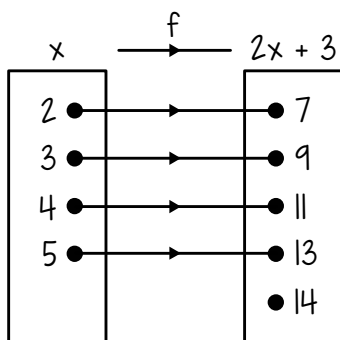
# WORKSHEET 1: FUNGSI

[1]

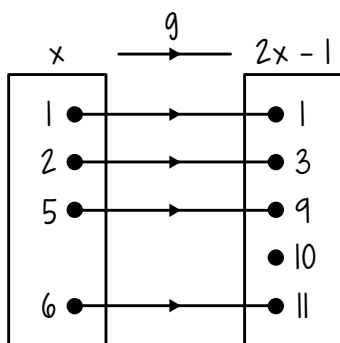
tentukan setiap yang berikut fungsi atau bukan fungsi



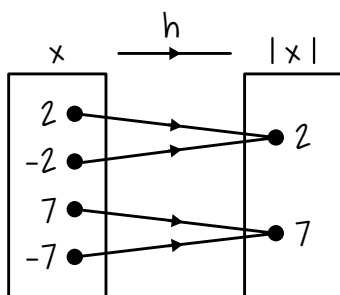
lengkapkan jadual berikut



domain = {			}
kodomain = {			}
julat = {			}
$f(2) =$	$f(4) =$	$f(5) =$	
$f^{-1}(11) =$	$f^{-1}(7) =$	$f^{-1}(9) =$	



domain = {			}
kodomain = {			}
julat = {			}
$g(6) =$	$g(2) =$	$g(5) =$	
$g^{-1}(1) =$	$g^{-1}(9) =$	$g^{-1}(11) =$	



domain = {			}
kodomain = {			}
julat = {			}
$h(2) =$	$h(-2) =$	$h(-7) =$	
$h(7) =$	$h^{-1}(2) =$	$h^{-1}(7) =$	

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# WORKSHEET 2: GRAF MODULUS

lukiskan graf bagi setiap yang berikut

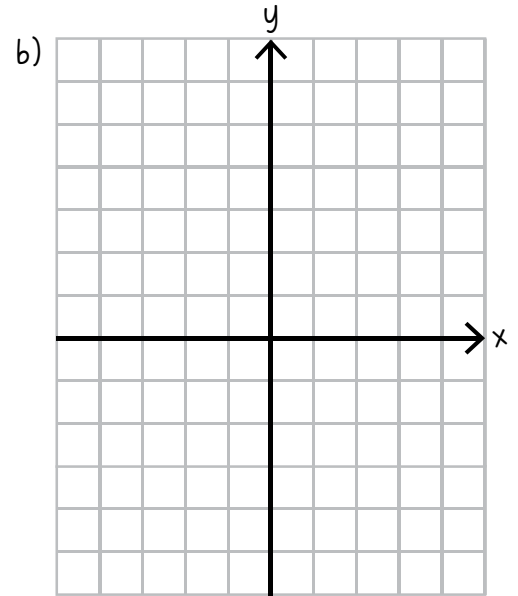
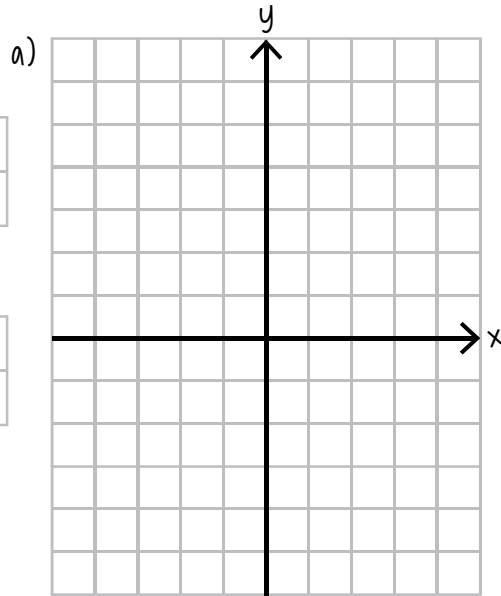
1. domain  $-2 \leq x \leq 4$

a)  $y = 2x - 4$

x							
y							

b)  $y = |2x - 4|$

x							
y							



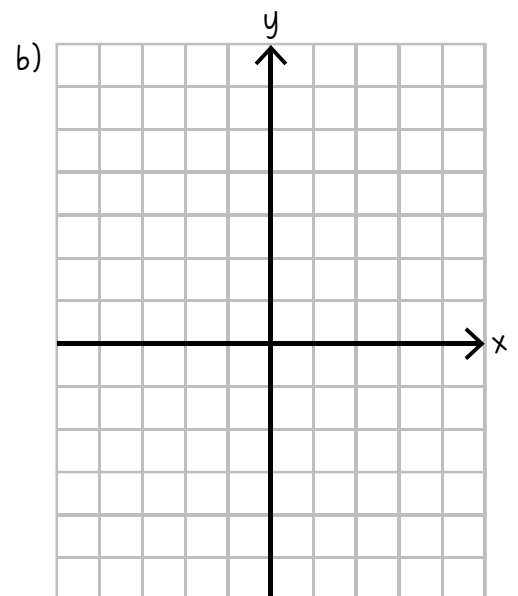
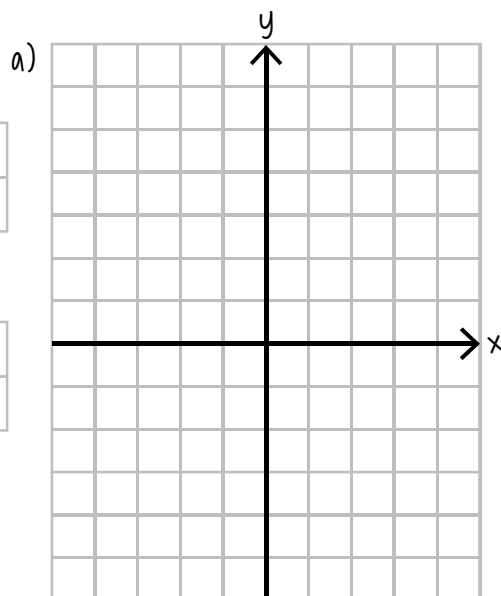
2. domain  $-2 \leq x \leq 4$

a)  $y = 2x - 6$

x							
y							

b)  $y = |2x - 6|$

x							
y							



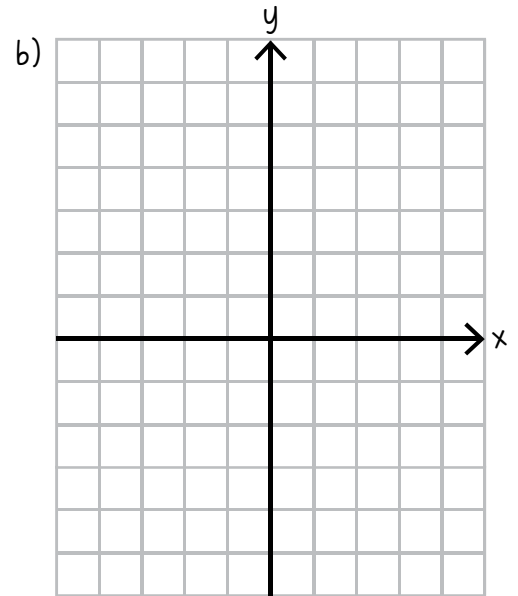
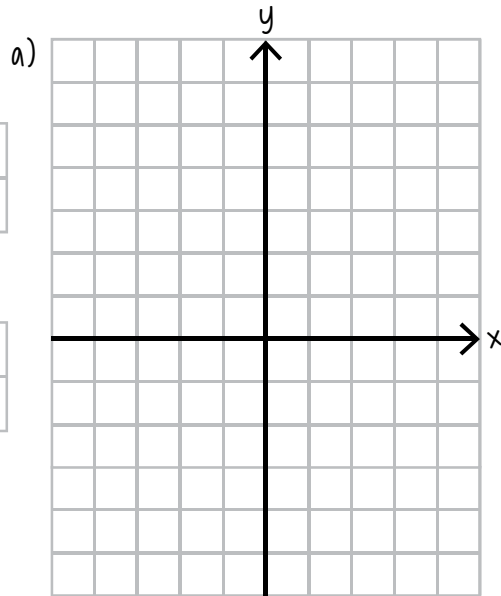
3. domain  $-3 \leq x \leq 3$

a)  $y = 2x - 3$

x							
y							

b)  $y = |2x - 3|$

x							
y							



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# WORKSHEET 2: GRAF MODULUS

lukiskan graf bagi setiap yang berikut

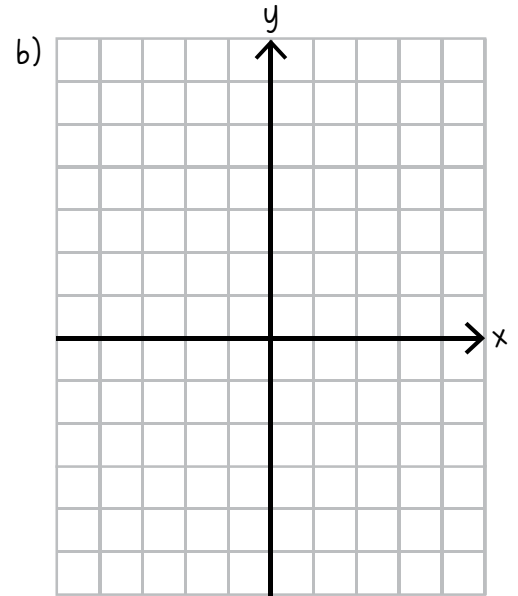
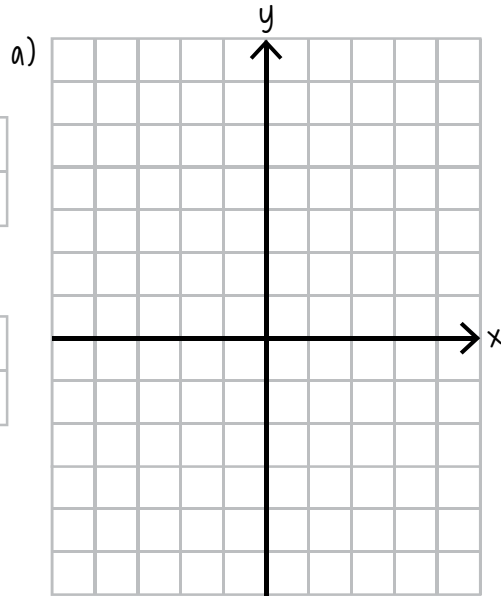
4. domain  $-2 \leq x \leq 4$

a)  $y = 2x - 5$

x							
y							

b)  $y = |2x - 5|$

x							
y							



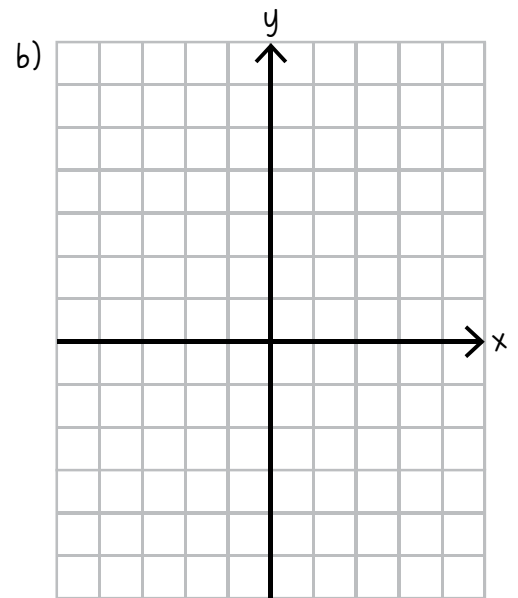
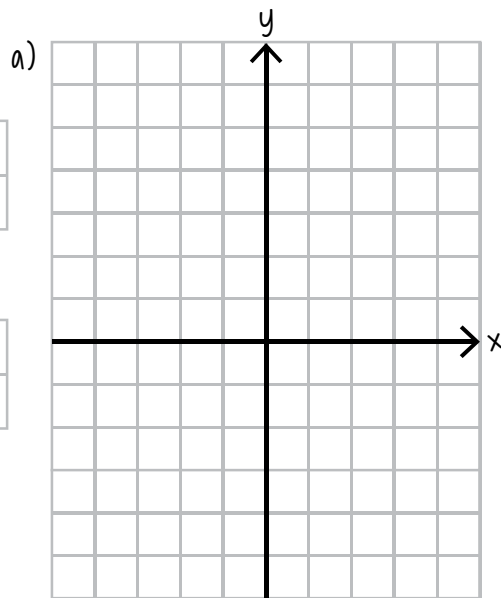
5. domain  $-3 \leq x \leq 3$

a)  $y = -3x + 1$

x							
y							

b)  $y = |-3x + 1|$

x							
y							



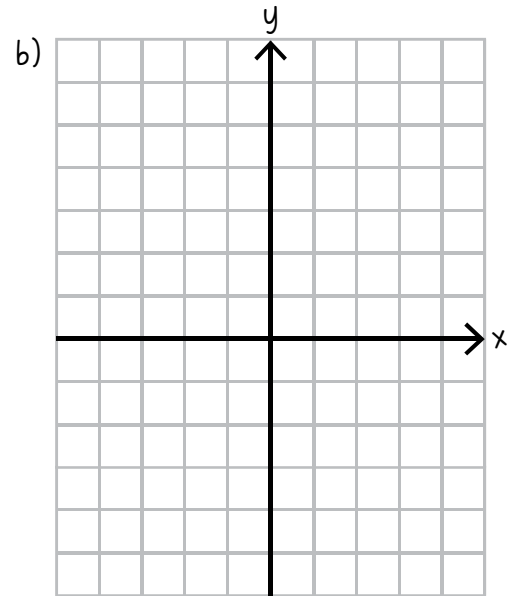
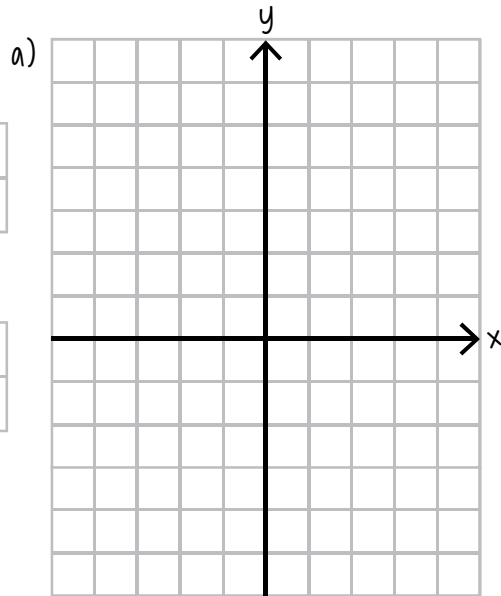
6. domain  $-2 \leq x \leq 4$

a)  $y = -3x + 4$

x							
y							

b)  $y = |-3x + 4|$

x							
y							



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# WORKSHEET 3: MENENTUKAN IMEJ ATAU OBJEK SUATU FUNGSI

[ 4 ]

selesaikan setiap yang berikut

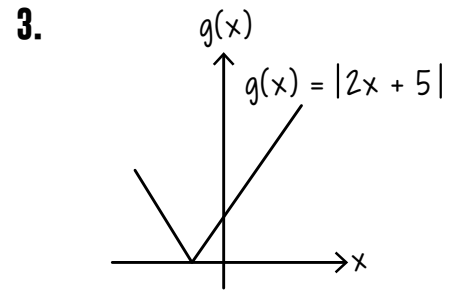
1.  $f: x \rightarrow 2x - \frac{5}{x}, x \neq 0$

Cari:

- $f(4)$
- imej bagi  $\frac{1}{2}$  bawah  $f$ .
- nilai-nilai  $x$  yang mungkin apabila imejnya ialah  $-3$ .

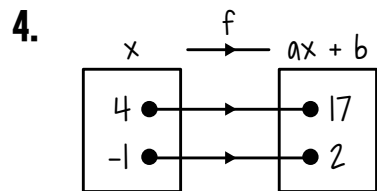
2.  $h: x \rightarrow 3 + \frac{12}{x-2}, x \neq 2$

- cari imej bagi 3 dan  $-4$
- imej bagi  $h(a) = a$ , cari nilai-nilai yang mungkin bagi  $a$ .



Cari:

- $g(-3)$  dan  $g(-2)$
- nilai-nilai  $x$  dengan  $g(x) = 13$
- nilai-nilai  $x$  yang memetakan kepada dirinya sendiri.
- domain bagi  $g(x) < 9$
- domain bagi  $g(x) \geq 15$

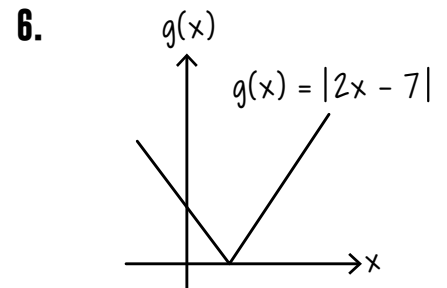


Cari nilai  $a$  dan  $b$ .

5.  $f: x \rightarrow 3x - \frac{4}{x}, x \neq 0$

Cari:

- $f(-2)$
- imej bagi  $\frac{1}{3}$  bawah  $f$ .
- nilai-nilai  $x$  yang mungkin apabila imejnya ialah 4.

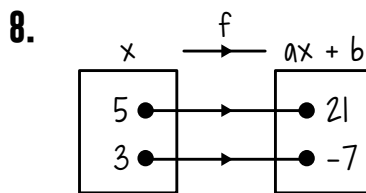


Cari:

- $g(1)$  dan  $g(-4)$
- nilai-nilai  $x$  dengan  $g(x) = 23$
- nilai-nilai  $x$  yang memetakan kepada dirinya sendiri.
- domain bagi  $g(x) < 3$
- domain bagi  $g(x) \geq 17$

7.  $h: x \rightarrow 5 + \frac{8}{x-3}, x \neq 3$

- cari imej bagi  $-1$  dan  $5$
- imej bagi  $h(a) = a$ , cari nilai-nilai yang mungkin bagi  $a$ .



Cari nilai  $a$  dan  $b$ .

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# WORKSHEET 4: FUNGSI GUBAHAN

[ 5 ]

tentukan  $fg(x)$ ,  $gf(x)$ ,  $ff(x)$  dan  $gg(x)$

1.  $f(x) = 3x + 5$   
 $g(x) = 2x - 7$

2.  $f(x) = 2x - 1$   
 $g(x) = 3x + 8$

3.  $f(x) = -4x + 9$   
 $g(x) = 5 - 2x$

4.  $f(x) = -8x + 3$   
 $g(x) = -6 - 7x$

5.  $f(x) = x^2$   
 $g(x) = 3x + 2$

6.  $f(x) = 5 - 2x$   
 $g(x) = x^2$

7.  $f(x) = x^2 + 6$   
 $g(x) = 2x - 1$

8.  $f(x) = 7 + x$   
 $g(x) = x^2 - 14$

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# WORKSHEET 4: FUNGSI GUBAHAN

[ 6 ]

tentukan  $fg(x)$ ,  $gf(x)$ ,  $ff(x)$  dan  $gg(x)$

9.  $f(x) = \frac{x}{2}$   
 $g(x) = 2x + 8$

10.  $f(x) = \frac{x}{3}$   
 $g(x) = 6x - 3$

11.  $f(x) = \frac{4x}{3}$   
 $g(x) = 1 - 6x$

12.  $f(x) = \frac{5x}{2}$   
 $g(x) = 7 + 4x$

13.  $f(x) = \frac{2x + 1}{3}$   
 $g(x) = -x + 4$

14.  $f(x) = \frac{5 + 3x}{2}$   
 $g(x) = 8 - x$

15.  $f(x) = \frac{-2x + 7}{4}$   
 $g(x) = 3 - 5x$

16.  $f(x) = \frac{-3x + 8}{5}$   
 $g(x) = 2 - 4x$

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# WORKSHEET 5: FUNGSI GUBAHAN

[ 7 ]

selesaikan setiap yang berikut

1.  $fg(x) = 5x + 8$   
 $f(x) = x - 12$   
 $g(x) = ?$

2.  $fg(x) = -2x + 7$   
 $f(x) = x - 9$   
 $g(x) = ?$

3.  $fg(x) = -4x - 11$   
 $f(x) = 2x + 5$   
 $g(x) = ?$

4.  $fg(x) = -9x + 2$   
 $f(x) = 3x - 4$   
 $g(x) = ?$

5.  $gf(x) = x^2 + 3$   
 $f(x) = ?$   
 $g(x) = x - 9$

6.  $gf(x) = 2x^2 - 6x + 7$   
 $f(x) = ?$   
 $g(x) = 2x + 1$

7.  $gf(x) = 6x^2 - 3x - 9$   
 $f(x) = ?$   
 $g(x) = 3x + 6$

8.  $fg(x) = 4x - 3$   
 $f(x) = ?$   
 $g(x) = x + 5$

9.  $fg(x) = 2x - 9$   
 $f(x) = ?$   
 $g(x) = -8 + x$

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selesaikan setiap yang berikut

**10.**  $fg(x) = 8x - 4$   
 $f(x) = ?$   
 $g(x) = 2x + 5$

**11.**  $fg(x) = 9x - 10$   
 $f(x) = ?$   
 $g(x) = -4 + 3x$

**12.**  $fg(x) = -24x + 9$   
 $f(x) = ?$   
 $g(x) = -6x - 8$

**13.**  $gf(x) = x^2$   
 $f(x) = x - 5$   
 $g(x) = ?$

**14.**  $gf(x) = x^2$   
 $f(x) = 3 - x$   
 $g(x) = ?$

**15.**  $gf(x) = x^2 + 8$   
 $f(x) = x - 3$   
 $g(x) = ?$

**16.**  $gf(x) = x^2 - 10$   
 $f(x) = -x + 4$   
 $g(x) = ?$

**17.**  $gf(x) = x^2 + 3x - 8$   
 $f(x) = x - 1$   
 $g(x) = ?$

**18.**  $gf(x) = x^2 - 5x + 9$   
 $f(x) = 7 - x$   
 $g(x) = ?$

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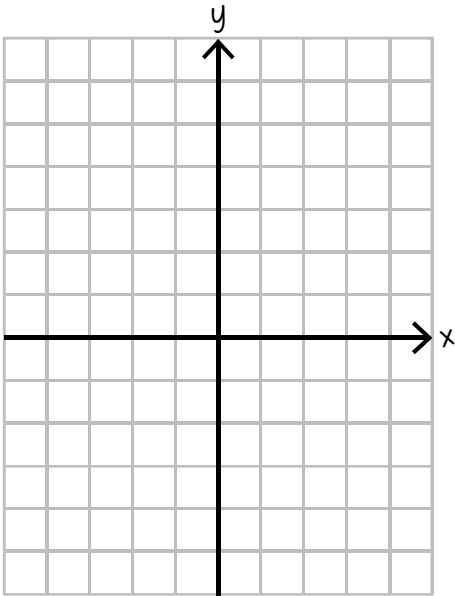
# WORKSHEET 6: GRAF FUNGSI SONGSANG

lukiskan graf  $f(x)$  dan  $f^{-1}(x)$  bagi setiap yang berikut

1.

$$f(x) = 3x - 2$$

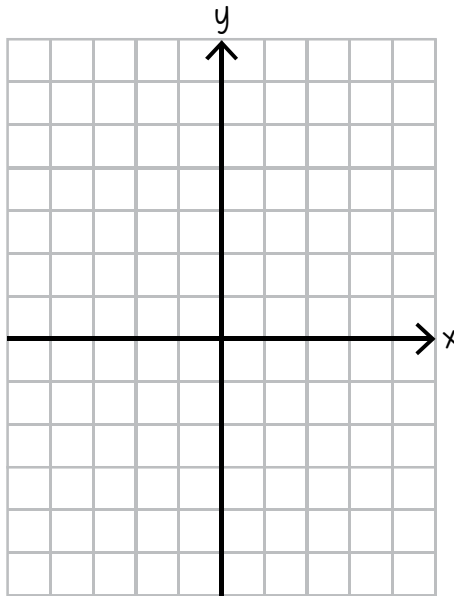
x	-2	0	4
y			



2.

$$f(x) = 2x - 3$$

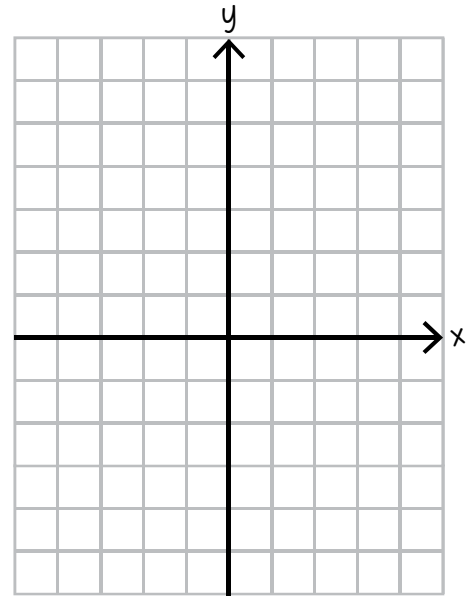
x	0	1	4
y			



3.

$$f(x) = -2x + 4$$

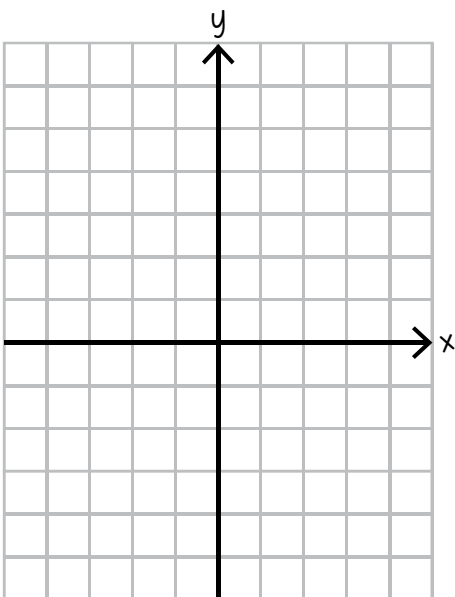
x	-2	0	6
y			



4.

$$f(x) = x^2 + 2x - 3$$

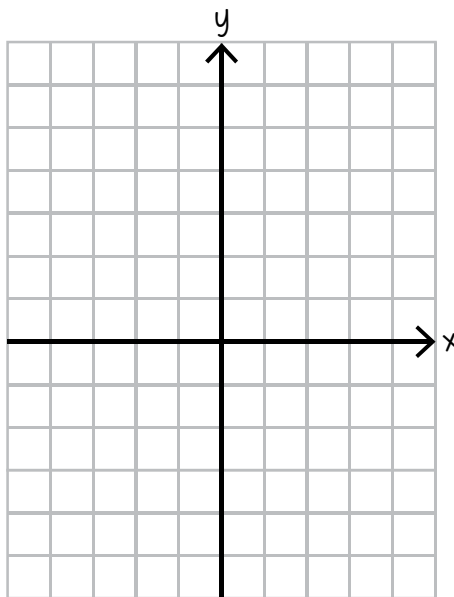
x	0	1	2
y			



5.

$$f(x) = x^2 + x - 4$$

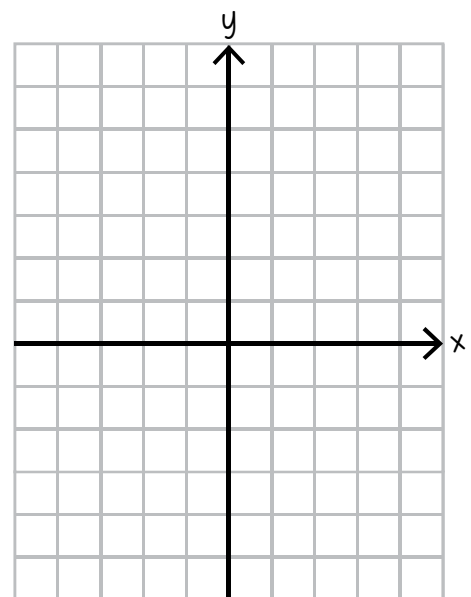
x	0	1	2
y			



6.

$$f(x) = x^2 + 2x - 5$$

x	0	1	2
y			



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# WORKSHEET 7: FUNGSI SONGSANG

[ 10 ]

tentukan  $f^{-1}(x)$  bagi setiap yang berikut

1.  $f(x) = 3x - 8$

2.  $f(x) = 4x + 7$

3.  $f(x) = -2x - 9$

4.  $f(x) = \frac{x - 5}{3}$

5.  $f(x) = \frac{x + 9}{4}$

6.  $f(x) = \frac{2x + 3}{5}$

7.  $f(x) = \frac{4x - 7}{2}$

8.  $f(x) = \frac{x + 5}{x - 2}$

9.  $f(x) = \frac{x - 4}{x + 3}$

10.  $f(x) = \frac{2x - 1}{3x + 2}$

11.  $f(x) = \frac{4 - 3x}{2x - 1}$

12.  $f(x) = \frac{5 - 2x}{4 + 3x}$

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# WORKSHEET 7: FUNGSI SONGSANG

[ 11 ]

selesaikan setiap yang berikut

13.  $f^{-1}(x) = 2x + 7$   
 $f(3) = ?$

14.  $f^{-1}(x) = 3x - 8$   
 $f(7) = ?$

15.  $f^{-1}(x) = 5 - 4x$   
 $f(1) = ?$

16.  $f^{-1}(x) = \frac{6}{x-1}$   
 $f(-3) = ?$

17.  $f^{-1}(x) = \frac{9}{x-4}$   
 $f(2) = ?$

18.  $f^{-1}(x) = \frac{3x-1}{5}$   
 $f(-2) = ?$

19.  $f^{-1}(x) = \frac{7-4x}{2}$   
 $f(5) = ?$

20.  $f(x) = 2x - 3$   
 $g(x) = x + 8$   
 $fg^{-1}(10) = ?$

21.  $f(x) = 5x + 2$   
 $g(x) = x - 3$   
 $fg^{-1}(4) = ?$

22.  $f(x) = 4x - 10$   
 $g(x) = 2x - 9$   
 $fg^{-1}(-6) = ?$

23.  $f(x) = 6x - 14$   
 $g(x) = 3x - 7$   
 $fg^{-1}(-5) = ?$

24.  $f(x) = 8x + 6$   
 $g(x) = 5 - 4x$   
 $fg^{-1}(7) = ?$

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# WORKSHEET 7: FUNGSI SONGSANG

[ 12 ]

soalan 25, 26 dan 27: tentukan samada fungsi berikut songsang antara satu sama lain

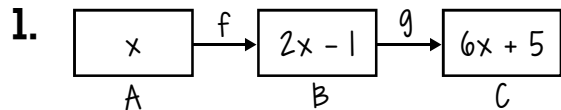
25.  $f(x) = 3x - 1$   
 $g(x) = \frac{x+1}{3}$

26.  $f(x) = 2 - 5x$   
 $g(x) = \frac{-x+2}{5}$

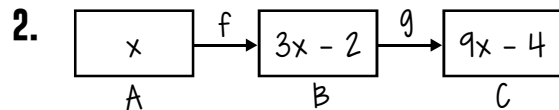
27.  $f(x) = \frac{2}{x-3}$   
 $g(x) = \frac{3x+2}{x}$

# WORKSHEET 8: FUNGSI

selesaikan setiap yang berikut



- a) fungsi yang memetakan Set B kepada Set A, dalam sebutan x.
- b)  $g(x)$
- c) nilai x apabila  $fg(x) = 2x - 5$



- a) fungsi yang memetakan Set B kepada Set A, dalam sebutan x.
- b)  $g(x)$
- c) nilai x apabila  $fg(x) = 5x - 20$

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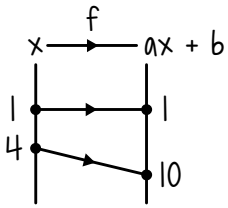
\* [facebook.com/kapurputeh.educative](https://facebook.com/kapurputeh.educative) \* [youtube.com/kapurputeh](https://youtube.com/kapurputeh) \* [instagram.com/kapurputeh](https://instagram.com/kapurputeh)



# WORKSHEET 8: FUNGSI

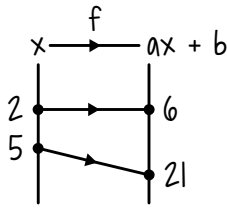
selesaikan setiap yang berikut

3.



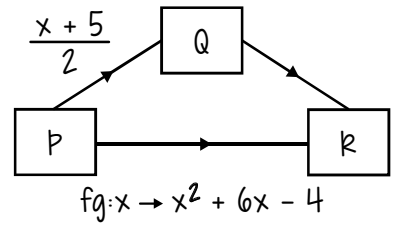
- a) nilai a dan b
- b)  $f^{-1}(x)$

4.



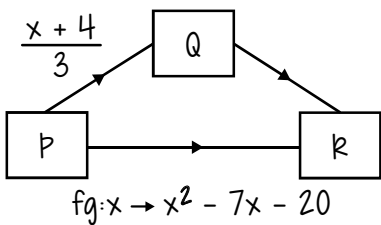
- a) nilai a dan b
- b)  $f^{-1}(x)$

5.



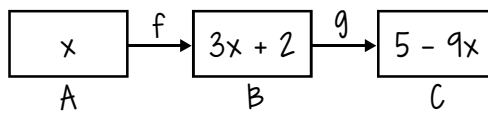
cari fungsi yang memetakan set Q kepada set R.

6.



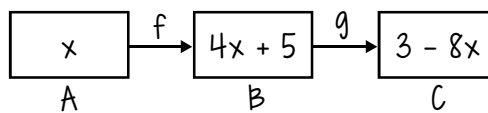
cari fungsi yang memetakan set Q kepada set R.

7.



- a) fungsi yang memetakan Set B kepada Set A, dalam sebutan x.
- b)  $g(x)$
- c) nilai x apabila  $f^{-1}g(x) = 2x - 3$

8.



- a) fungsi yang memetakan Set B kepada Set A, dalam sebutan x.
- b)  $g(x)$
- c) nilai x apabila  $f^{-1}g(x) = -x + 2$