

(3) : _____

$$A = \frac{1134}{729} - 2 \div \frac{9}{5} \quad .1$$

$$b \quad b\sqrt{3} \quad B = \sqrt{147} - 2\sqrt{27} + 5\sqrt{3} \quad .2$$

$$C = \frac{25 \times 10^{-2} \times (3 \times 10^{-3})^2}{2 \times 10^5} \quad .3$$

(2,5) : _____

$$E = (2x - 3)^2 - 36 \quad :$$

$$E \quad .1$$

$$x = \sqrt{2} \quad E \quad .2$$

$$E = 64 \quad .3$$

(3) : _____

$$ST = 60 \text{ mm} \quad RT = 48 \text{ mm} \quad RS = 36 \text{ mm} \quad RST$$

$$RST \quad .1$$

$$\widehat{RST} \quad \tan \widehat{RST} \quad .2$$

$$\frac{TN}{TS} = \frac{3}{2} \quad [TS) \quad N \quad TM = 72 \text{ mm} \quad [TR) \quad M \quad .3$$

$$(MN) // (RS) \quad -$$

$$p = \frac{MNT}{RST} \quad : \quad .4$$

(3,5) : _____

$$(O; \vec{i}, \vec{j})$$

$$B(-1; -1) \quad A(3; 1)$$

$$AB \quad \overrightarrow{AB} \quad .1$$

$$90^\circ \quad B \quad A \quad C \quad .2$$

$$\overrightarrow{BD} = \overrightarrow{BA} + \overrightarrow{BC} \quad : \quad D$$

$$ABCD \quad .3$$

$$ABCD \quad .4$$

(8) : _____

4

6

.1

.108000DA

.123000DA

6

5

—

.20%

:

.2



24DA

:

16DA

2400DA

:

▪

$g(x)$ $f(x)$

x

()

:

$g(x)$ $f(x)$

x

—

x	0	450	500
$f(x)$			
$g(x)$			

:

g f

()



2400DA

1 cm

50km

1 cm

$f(x) < g(x)$

()

()

:

425	300	780	431		
800	131	630		431	
975	582		630	780	
703		582	131	300	
	703	975	800	425	

—



(3) : _____

pgcd(1 134; 729) .1

$$\begin{cases} 1134 = 729 \times 1 + 405 \\ 729 = 405 \times 1 + 324 \\ 405 = 324 \times 1 + 81 \\ 324 = 81 \times 4 + 0 \end{cases} \Rightarrow \text{PGCD}(1134; 729) = 81$$

$$A = \frac{1134}{729} - 2 \div \frac{9}{5} = \frac{1134 \div 81}{729 \div 81} - 2 \times \frac{5}{9} = \frac{14}{9} - \frac{10}{9} = \boxed{\frac{4}{9}}$$

$$B = \sqrt{147} - 2\sqrt{27} + 5\sqrt{3} = \sqrt{49 \times 3} - 2\sqrt{9 \times 3} + 5\sqrt{3} = 7\sqrt{3} - 2 \times 3\sqrt{3} + 5\sqrt{3} = 7\sqrt{3} - 6\sqrt{3} + 5\sqrt{3} = (7 - 6 + 5)\sqrt{3} = \boxed{6\sqrt{3}} \quad : \quad .2$$

$$C = \frac{25 \times 10^{-2} \times (3 \times 10^{-3})^2}{2 \times 10^5} = \frac{25 \times 10^{-2} \times 3^2 \times 10^{-3 \times 2}}{2 \times 10^5} = \frac{25 \times 10^{-2} \times 9 \times 10^{-6}}{2 \times 10^5} = \frac{25 \times 9}{2} \times \frac{10^{-2} \times 10^{-6}}{10^5} = 112,5 \times 10^{-2+(-6)-5} = 1,125 \times 10^2 \times 10^{-13} = 1,125 \times 10^{2+(-13)}$$

$$\boxed{C = 1,125 \times 10^{-11}}$$

(3) : _____

: E .1

$$E = (2x - 3)^2 - 36 = (2x)^2 - 2 \times 2x \times 3 + 3^2 - 36 = 4x^2 - 12x + 9 - 36 = \boxed{4x^2 - 12x - 27}$$

: $x = \sqrt{2}$ E .2

$$E = 4(\sqrt{2})^2 - 12\sqrt{2} - 27 = 4 \times 2 - 12\sqrt{2} - 27 = 8 - 27 - 12\sqrt{2} = \boxed{-19 - 12\sqrt{2}}$$

$$(2x - 3)^2 - 100 = 0 \quad (2x - 3)^2 - 36 - 64 = 0 \quad (2x - 3)^2 - 36 = 64 \quad E = 64 \quad .3$$

$$(2x - 13)(2x + 7) = 0 \quad (2x - 3 - 10)(2x - 3 + 10) = 0 \quad (2x - 3)^2 - 10^2 = 0$$

$$\left. \begin{array}{l} 2x - 13 = 0 \\ 2x = 13 \\ x = \frac{13}{2} \end{array} \right\}$$

$$\left. \begin{array}{l} 2x + 7 = 0 \\ 2x = -7 \\ x = \frac{-7}{2} \end{array} \right\}$$

$$\cdot \frac{13}{2} \quad \frac{-7}{2}$$

(3) : _____

$$\begin{cases} ST^2 = 60^2 = 3600 \\ RS^2 + RT^2 = 36^2 + 48^2 = 1296 + 2304 = 3600 \end{cases} \quad : \quad .1$$

$$RS^2 + RT^2 = ST^2$$

.R RST

$$\tan \widehat{RST} = \frac{RT}{RS} = \frac{48}{36} \approx 1,333 \quad : \quad R \quad RST \quad .2$$

$$\widehat{RST} = 53^\circ$$

$$\cdot \widehat{RST} = 1,333 \quad \text{2nde} \quad \tan^{-1} \approx 53,1^\circ$$

$$\frac{TM}{TR} = \frac{TN}{TS} \quad \frac{TN}{TS} = \frac{3}{2} = 1,5 \quad \frac{TM}{TR} = \frac{72}{48} = 1,5 \quad : \quad .3$$

$$\frac{TM}{TR} = \frac{TN}{TS}$$

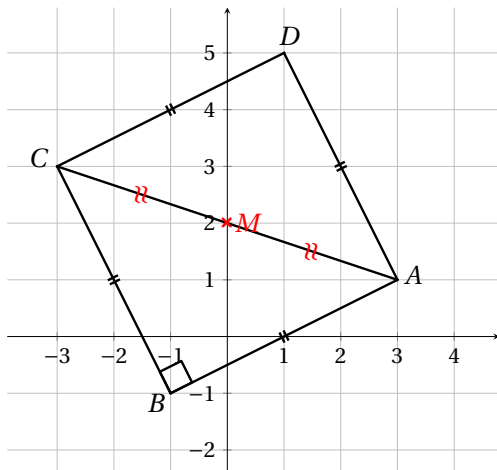
N S T M R T

.(MN) // (RS)

$$p = \frac{RST}{MNT} = k^2 = (1,5)^2 = 2,25 \quad \frac{MNT}{RST} \quad .4$$

$$k = \frac{TN}{TS} = \frac{3}{2} = 1,5$$

(3) : _____



$$\overrightarrow{AB} \begin{pmatrix} -4 \\ -2 \end{pmatrix} \quad \begin{cases} x_B - x_A = -1 - 3 = -4 \\ y_B - y_A = -1 - 1 = -2 \end{cases} \quad : \quad .1$$

$$AB = \sqrt{(x_B - x_A)^2 + (y_B - y_A)^2} \quad :$$

$$= \sqrt{(-4)^2 + (-2)^2} = \sqrt{16 + 4} = \sqrt{20} = \sqrt{4 \times 5} = 2\sqrt{5} \text{ cm}$$

.() D C .2

B A C .3

$$.BA = BC \quad \widehat{ABC} = 90^\circ$$

$$ABCD \quad \overrightarrow{BD} = \overrightarrow{BA} + \overrightarrow{BC}$$

.()

ABCD

$$x_M = \frac{x_A + x_C}{2} = \frac{3 + (-3)}{2} = \frac{0}{2} = 0 \quad () \quad .4$$

$$y_M = \frac{y_A + y_C}{2} = \frac{1 + 3}{2} = \frac{4}{2} = 2$$

$$C(-3;3) : .() [AC]$$

$$.M(0;2)$$

(8) : _____

$$. \quad b \quad a \quad .1$$

$$.\left(1 + \frac{20}{100}\right)b = 1,2b$$

$$b + 4a = 108000 \div 6 \quad 6(b + 4a) = 108000 \quad :$$

$$4a + b = 18000$$

$$5(1,2b + 6a) = 123000 \quad :$$

$$6a + 1,2b = 24600 \quad 1,2b + 6a = 123000 \div 5$$

$$\begin{cases} 4a + b = 18000 \dots\dots (1) \\ 6a + 1,2b = 24600 \dots\dots (2) \end{cases} \quad :$$

$$-4,8a - 1,2b = -21600 \quad : \quad (-1,2) \quad (1)$$

$$-4,8a - 1,2b + 6a + 1,2b = -21600 + 24600 \quad : \quad (2)$$

$$a = 3000 \div 1,2 = 2500 \quad 1,2a = 3000$$

$$b = 18000 - 4a = 18000 - 4 \times 2500 = 18000 - 10000 = 8000 \quad : \quad (1)$$

$$1,2 \times 8000 = 9600 \text{ DA} \quad 8000 \text{ DA} \quad 2500 \text{ DA} \quad : \quad \underline{\hspace{2cm}}$$

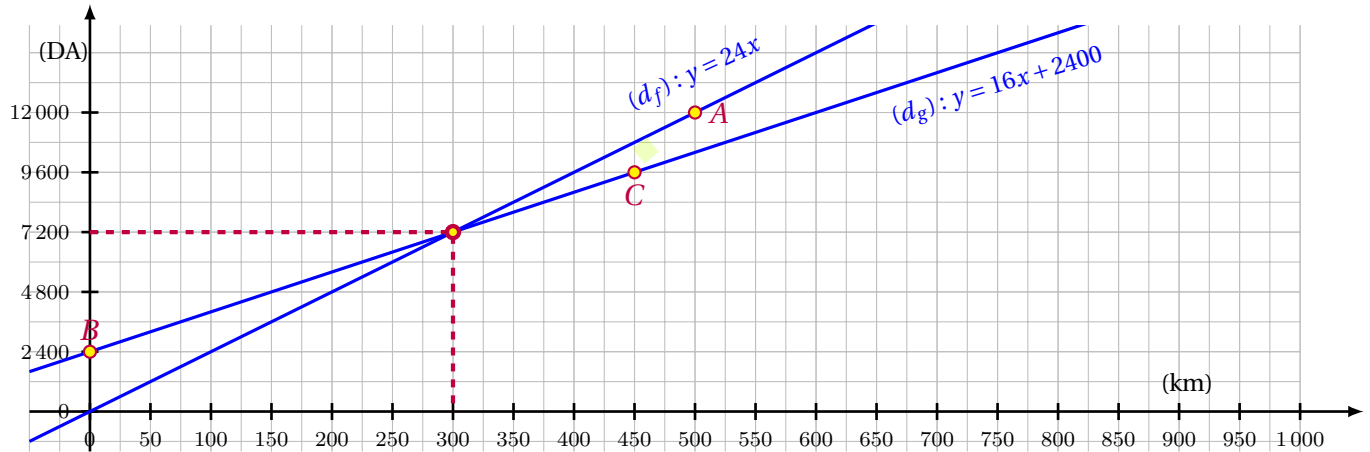
$g(x) = 16x + 2400$
 $f(x) = 24x$
() .2

x	0	450	500
$f(x)$	$24 \times 0 = 0$	$24 \times 450 = 10800$	$24 \times 500 = 12000$
$g(x)$	$16 \times 0 + 2400 = 2400$	$16 \times 450 + 2400 = 9600$	$16 \times 500 + 2400 = 10400$

$A(500, 12000)$ (OA) f ()

$C(450; 9600)$ $B(0; 2400)$ (BC) g ()

.(())



g (d_g) f (d_f) $f(x) < g(x)$ ()

$x < 300$

300 km $:$ _____

300 km 131 km $\bullet$ ()

300 km 582 km $\bullet$

$\bullet$
 $\bullet$
 $\bullet$