

Name: Key

Date: _____

MULTIPLE CHOICE PRACTICE

1) If triangle ABC is rotated 180 degrees, what are the coordinates of A'?

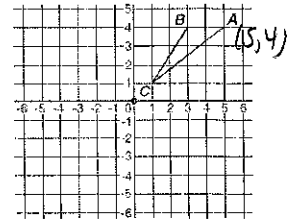
a) (-5, -4)

b) (-5, 4)

c) (-4, 5)

d) (-4, -5)

$(x, y) \rightarrow (-x, -y)$



2) What are the coordinates of R' after triangle RST is rotated 90 degrees clockwise?

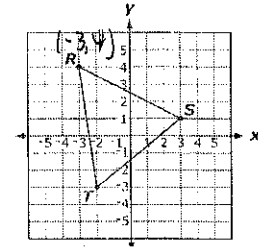
a) (-3, -4)

b) (-4, -3)

c) (3, 4)

d) (4, 3)

$(x, y) \rightarrow (y, -x)$



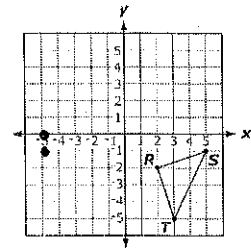
3) Triangle RST is reflected across the y-axis and then, translated 1 unit up to create triangle R'S'T'. What are the coordinates of S'?

a) (-5, -2)

b) (-5, 0)

c) (-4, -1)

d) (-4, 0)



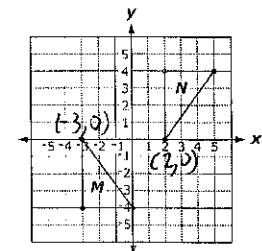
4) Which statement describes the transformation that would map triangle M to triangle N on this grid?

a) $(x, y) \rightarrow (-x + 5, -y)$

b) $(x, y) \rightarrow (-x + 5, y)$

c) $(x, y) \rightarrow (-x + 5, -y)$

d) $(x, y) \rightarrow (-x + 5, y)$



5) Which expression describes the translation of a point from (-3, 4) to (4, -1)?

a) 7 units left, 5 units up

b) 7 units right, 5 units up

c) 7 units left, 5 units down

d) 7 units right, 5 units down

6) A regular pentagon is centered about the origin and has a vertex at (0, 4). Which transformation maps the pentagon to itself?

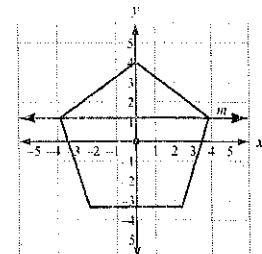
a) reflection across line m

b) reflection about the x-axis

c) a clockwise rotation 100° about the origin

d) a clockwise rotation 144° about the origin

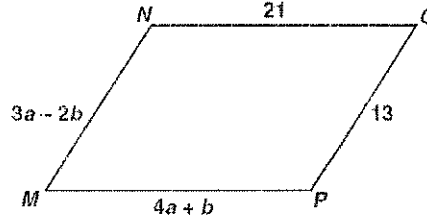
One Rotation
 $\frac{360}{5} = 72^\circ$



7) Given: TRAP is an isosceles trapezoid with diagonals \overline{RP} and \overline{TA} . Which of the following must be true?

- a) $\overline{RP} \perp \overline{TA}$ b) $\overline{RP} \parallel \overline{TA}$ **c) $\overline{RP} \cong \overline{TA}$** d) \overline{RP} bisects \overline{TA}

8) What values of a and b make quadrilateral MNOP a parallelogram?



$$\begin{aligned} 3a - 2b &= 13 \\ 4a + b &= 21 \end{aligned}$$

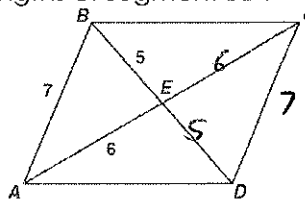
$$\begin{array}{r} 3a - 2b = 13 \\ 8a + 2b = 42 \\ \hline 11a = 55 \\ a = 5, \\ b = 1 \end{array}$$

- a) $a = 1, b = 5$ **b) $a = 5, b = 1$** c) $a = 11/7, b = 34/7$ d) $a = 34/7, b = 11/7$

9) Quadrilateral ABCD is a parallelogram. If adjacent angles are congruent, which statement must be true?

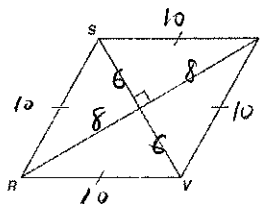
- a) ABCD is a square b) ABCD is a rhombus **c) ABCD is a rectangle** d) ABCD is isosceles

10) If ABCD is a parallelogram, what is the length of segment BD?



- a) 10** b) 11 c) 12 d) 14

11) What is the area, in square centimeters, of rhombus RSTV if $RT = 16$ cm and $SV = 12$ cm?



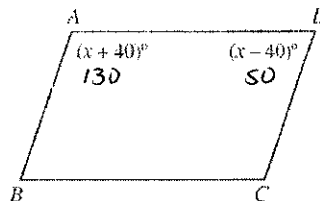
$$\frac{1}{2}(6)(8) = 24 \text{ cm}^2$$

$$\frac{24}{2} = 48$$

$$48 \times 2 = 96 \text{ cm}^2$$

- a) 40 b) 48 **c) 96 cm²** d) 192

12) In the figure below, $\overline{AB} \parallel \overline{CD}$. What is the value of x?



$$\begin{aligned} x + 40 + x - 40 &= 180 \\ 2x &= 180 \\ x &= 90 \end{aligned}$$

- a) 40 b) 50 c) 80 **d) 90**