

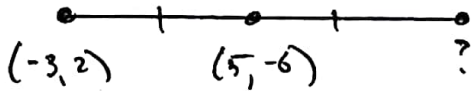
SECTION 6.2 - COORDINATE GEOMETRY

REVIEW:

① SIMPLIFY $\sqrt{32}$

② FIND THE MIDPOINT OF THE SEGMENT WHOSE ENDPOINTS ARE $(-1, 5)$ AND $(3, -7)$.

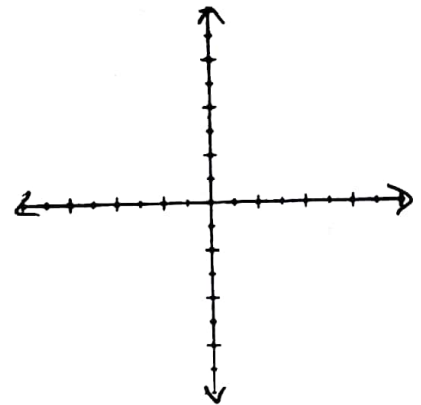
③ FIND THE MISSING ENDPOINT.



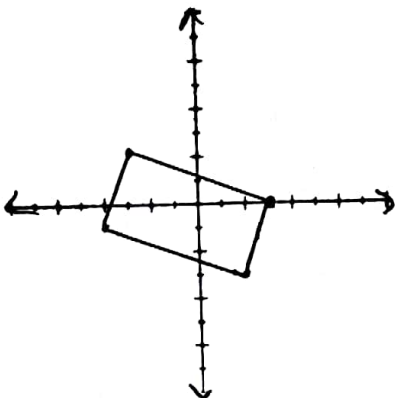
EXAMPLE 1. $\triangle ABC$ HAS VERTICES AT $A(3, 2)$, $B(3, 5)$, AND $C(-4, 2)$.

① FIND THE PERIMETER OF $\triangle ABC$.

② FIND THE AREA OF $\triangle ABC$.



EXAMPLE 2. FIND THE LENGTH OF THE DIAGONAL OF THE RECTANGLE GRAPHED BELOW.

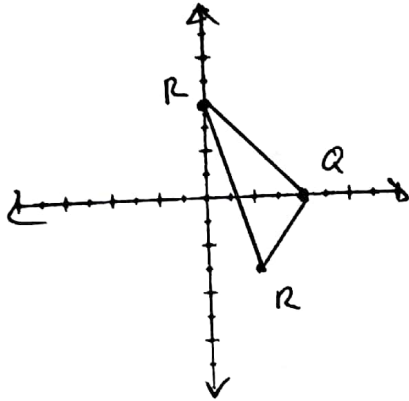


EXAMPLE 3. FIND THE AREA OF THE RECTANGLE.

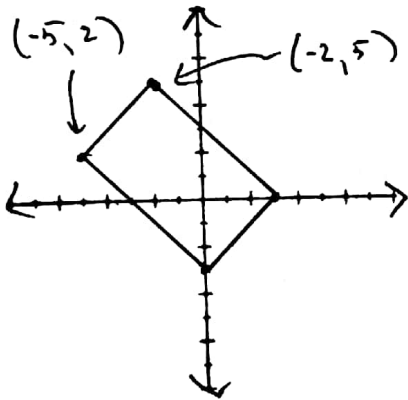
①

APPLICATIONS.

① FIND THE PERIMETER OF $\triangle PQR$.



② FIND THE AREA OF THE RECTANGLE GRAPHED BELOW.



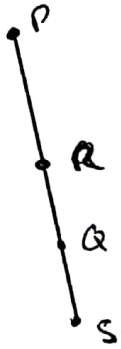
③ FIND THE LENGTH OF THE DIAGONAL OF THE RECTANGLE IN NUMBER ②.

④ FIND THE PERIMETER OF THE RECTANGLE IN NUMBER ②.

②

5) R IS THE MIDPOINT OF \overline{PS} . Q IS THE MIDPOINT OF \overline{RS} .

GIVEN $P(2, 10)$ AND $S(10, -14)$, WHAT ARE THE COORDINATES OF Q?



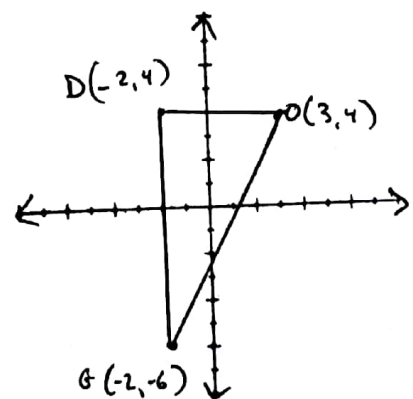
6) WHAT IS THE LENGTH OF A SEGMENT WHOSE ENDPPOINTS ARE $(3, -2)$ AND $(7, 6)$?

7) A FLEA SITTING ON A PIECE OF GRAPH PAPER HOPS FROM $A(0, 0)$ TO $B(3, 2)$, THEN TO $C(-4, -2)$, AND FINALLY LANDS AT $D(-4, 3)$.

(A) WHAT WAS THE TOTAL DISTANCE THE FLEA TRAVELED?

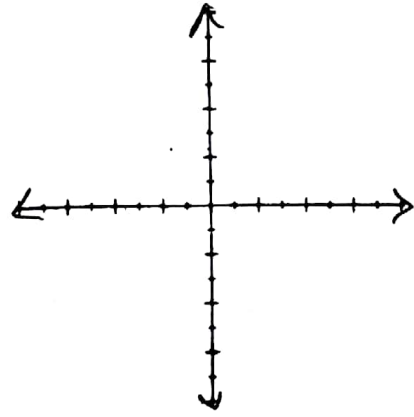
(B) HOW FAR FROM THE STARTING POINT DID THE FLEA END UP?

8) WHAT IS THE PERIMETER OF $\triangle DOG$?



9) THE VERTICES OF $\triangle GHI$ ARE $G(8,0)$, $H(6,-4)$, AND $J(0,-1)$. WHAT TYPE OF TRIANGLE IS $\triangle GHI$?

- (A) RIGHT SCALENE
- (B) NON-RIGHT SCALENE
- (C) RIGHT ISOSCELES
- (D) NON-RIGHT ISOSCELES



10) WHICH LINE SEGMENT IS PERPENDICULAR TO THE LINE $y = -\frac{1}{3}x - 10$?

- (A) \overline{AB} WITH ENDPPOINTS $A(-1,4)$ AND $B(5,2)$.
- (B) \overline{CD} WITH ENDPPOINTS $C(-1,4)$ AND $D(-4,-5)$.
- (C) \overline{FG} WITH ENDPPOINTS $F(-1,4)$ AND $G(2,5)$.
- (D) \overline{RS} WITH ENDPPOINTS $R(-1,4)$ AND $S(0,-10)$.

11) M IS THE MIDPOINT OF \overline{PQ} . M IS LOCATED AT $M(-2,6)$ AND Q IS LOCATED AT $Q(3,8)$. IF THE COORDINATES OF P ARE (x,y) , WHAT IS THE VALUE OF x ?

12) A RIGHT TRIANGLE HAS VERTICES AT $A(0,6)$, $B(3,2)$ AND $C(11,8)$. $\angle ABC$ IS A RIGHT ANGLE. WHAT IS THE AREA OF $\triangle ABC$?