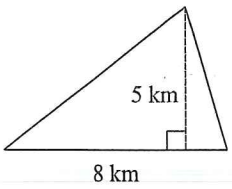
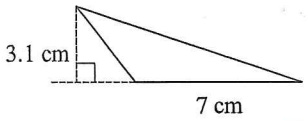
Friday Geometry Area Review Name Key ID: 1

Missing Parts, Composite Figures, & Regular Polygons Date _____ Hour ____

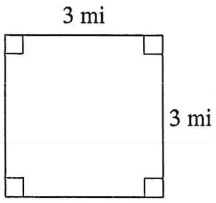
Find the area of each. Show all formulas, work AND circle Final answers on all questions

1) 

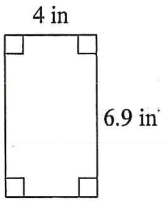
$20\ km^2$

2) 

$10.85\ cm^2$

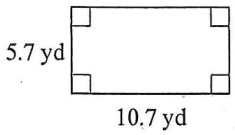
3) 

$9\ mi^2$

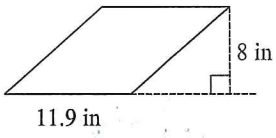
4) 

$27.6\ in^2$

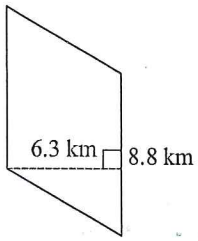
NO work/forms. will earn you NO credit

5) 

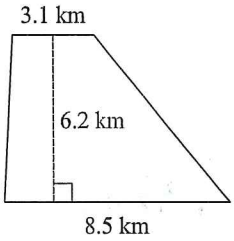
$60.99\ yd^2$

6) 

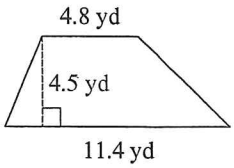
$95.2\ in^2$

7) 

$55.44\ km^2$

8) 

$35.96\ km^2$

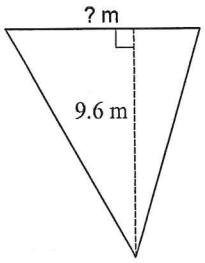
9) 

$36.45\ yd^2$

I'm Really NOT Kidding! If you don't have work You will not earn credit.

Find the missing measurement. Round your answer to the nearest tenth.

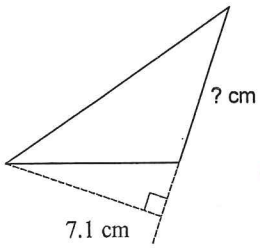
10)



8.3m

Area = 39.8 m²

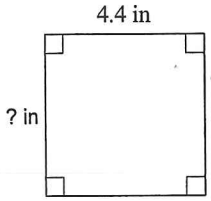
11)



7cm

Area = 24.8 cm²

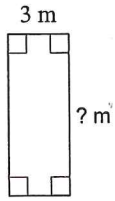
12)



4.4in

Area = 19.4 in²

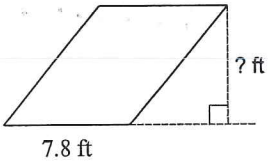
13)



7.9m

Area = 23.7 m²

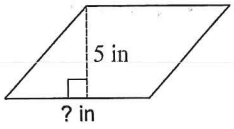
14)



7.1 ft

Area = 55.4 ft²

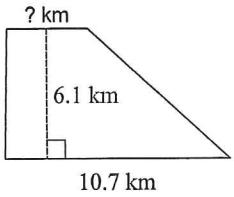
15)



8 in

Area = 40 in²

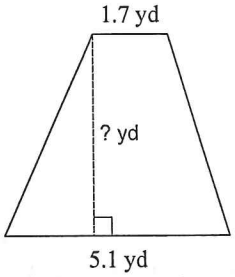
16)



3.9km

Area = 44.5 km²

17)

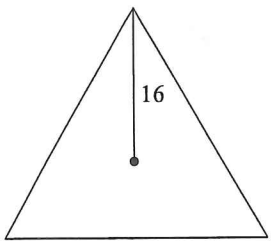


4.5yd

Area = 15.3 yd²

Find the area of each regular polygon. Round your answer to the nearest tenth if necessary.

18)

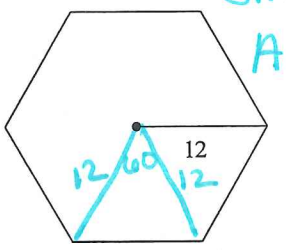


332.6 units²

19)

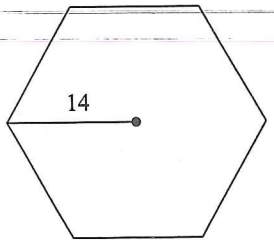
Given Radius

$A = 6 \cdot \frac{1}{2} 12 \cdot 12 \sin 60$



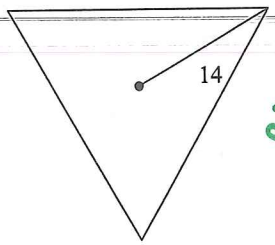
374.1 units²

20)



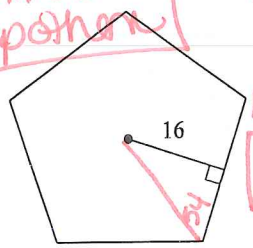
509.2 units²

21)



254.6 units²

22) Given apothem



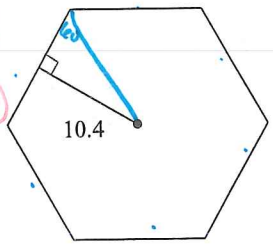
$\sin(54) = \frac{16}{r}$

$r = 19.8$

$A = 5 \cdot \frac{1}{2} 19.8 \cdot 19.8 \sin(72)$

$A = 932.1 \text{ units}^2$

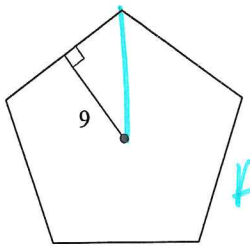
23)



$r = 12.0$

$A \approx 374.1 \text{ units}^2$

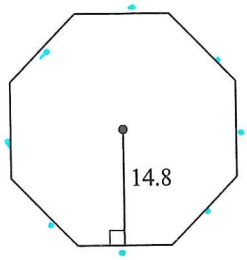
24)



$r = 11.1$

$A = 292.9 \text{ units}^2$

25)



~~$r = 15.1$~~

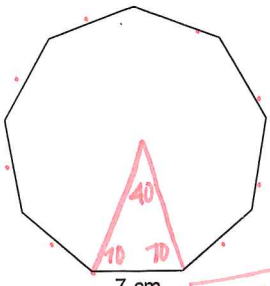
$r = 16.1$

$A = 733.2 \text{ units}^2$

Find the area of each figure. Round your answer to the nearest tenth.

26) Given side length

$n = 9$



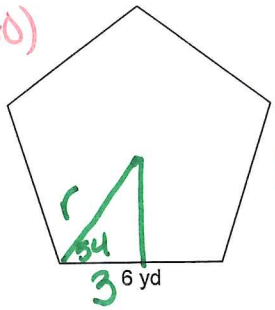
$A = 9 \cdot \frac{1}{2} 10.2 \times 10.2 \sin(40)$

$A \approx 300.9 \text{ units}^2$

$\cos(70) = \frac{3.5}{r}$

$r = 10.2$

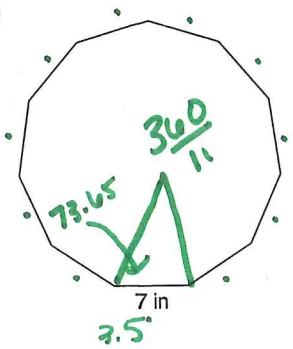
27)



$r = 5.1$

$A = 61.8 u^2$

28)



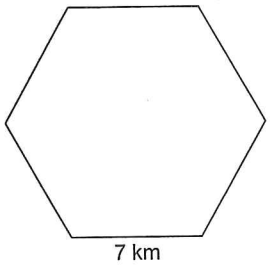
$\cos(73.65) = \frac{3.5}{r}$

$r = 12.4$

$A = 456.87$

$A = 456.9 \text{ in}^2$

29)

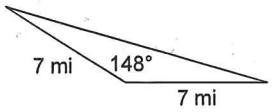


$r = 7$

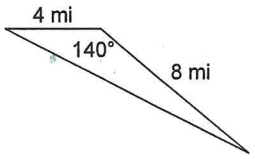
$A = 127.3 \text{ km}^2$

Read!

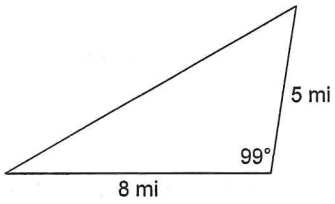
Find the area of each figure. A= 1/2absinC Round your answer to the nearest tenth.

30) 

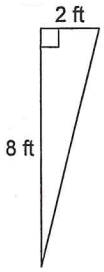
13mi

31) 

$10.3 mi^2$

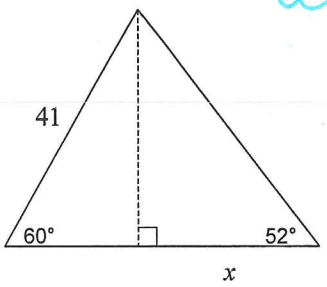
32) 

$19.8 mi^2$

33) 

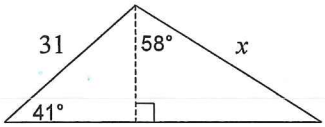
$8 ft^2$

Find the length of the side labeled *x*. Round intermediate values to the nearest tenth. Use the rounded values to calculate the next value. Round your final answer to the nearest tenth.

34) 

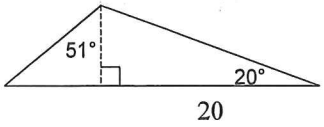
Use TRIG to find missing Parts!

$x = 27.7$

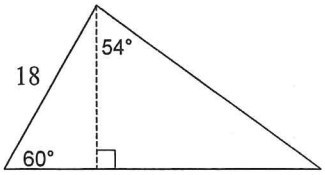
35) 

$x = 38.3$

Find the area of each triangle. Round intermediate values to the nearest tenth. Use the rounded values to calculate the next value. Round your final answer to the nearest tenth.

36) 

$A = 105.8 \text{ units}^2$

37) 

$A = 237.9 \text{ units}^2$

Name: _____ Class: _____ Date: _____ ID: A

NO WORK = NO Credit
IF You just have answers You earn a Zero!

Coordinate Plane Composites

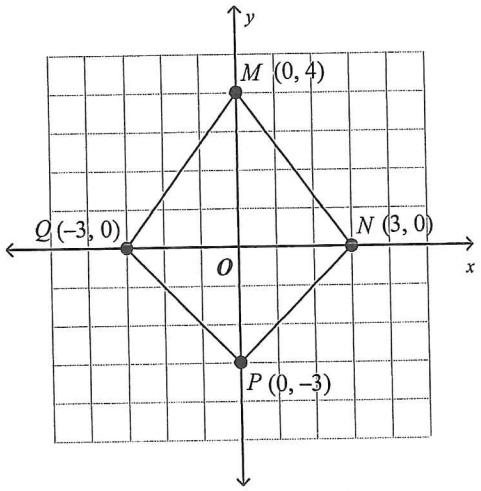
Multiple Choice
Identify the choice that best completes the statement or answers the question.

A 1. Given the coordinates of the vertices of a quadrilateral, determine whether it is a *square*, a *rectangle*, or a *parallelogram*. Then find the perimeter of the quadrilateral.
$A(-3, -2)$, $B(2, -2)$, $C(4, 2)$, $D(-1, 2)$
a. parallelogram; $(10 + 4\sqrt{5})$ units
b. rectangle; $(25 + 2\sqrt{5})$ units
c. square; $(5 + 2\sqrt{5})$ units
d. none of these

A 2. Given the coordinates of the vertices of a quadrilateral, determine whether it is a *square*, a *rectangle*, or a *parallelogram*. Then find the area of the quadrilateral.
$A(2, -3)$, $B(7, -3)$, $C(9, 2)$, $D(4, 2)$
a. parallelogram; 25 units^2
b. rectangle; 20 units^2
c. square; 10 units^2
d. none of these

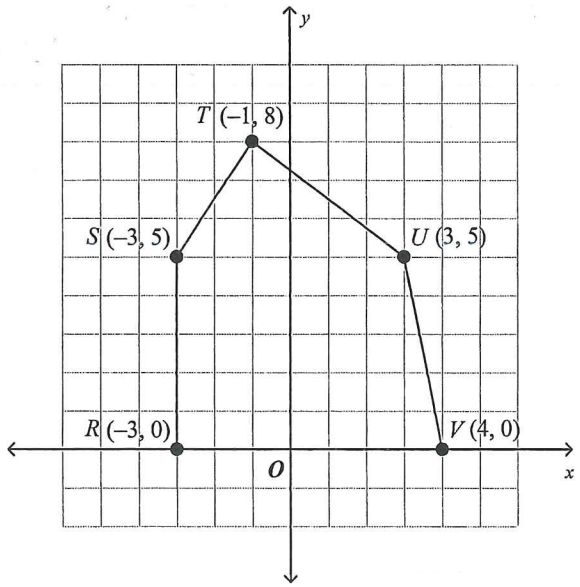
Find the area of the figure. Round to the nearest tenth if necessary.

B 3.



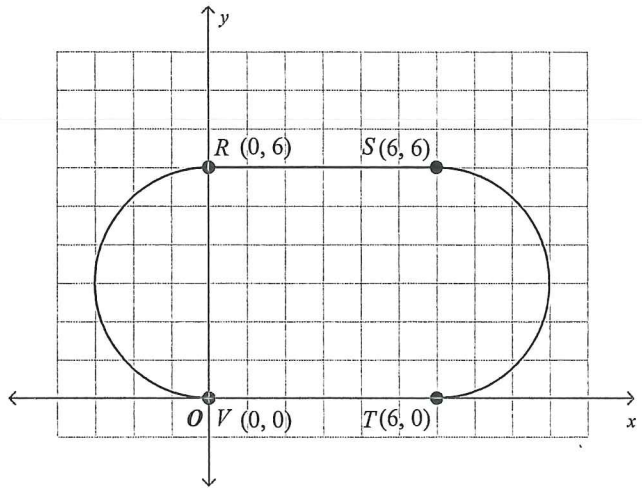
a. 42 units^2
b. 21 units^2
c. 33 units^2
d. 30 units^2

A 4.



a. 41.5 units²
b. 50.5 units²
c. 74 units²
d. 56.5 units²

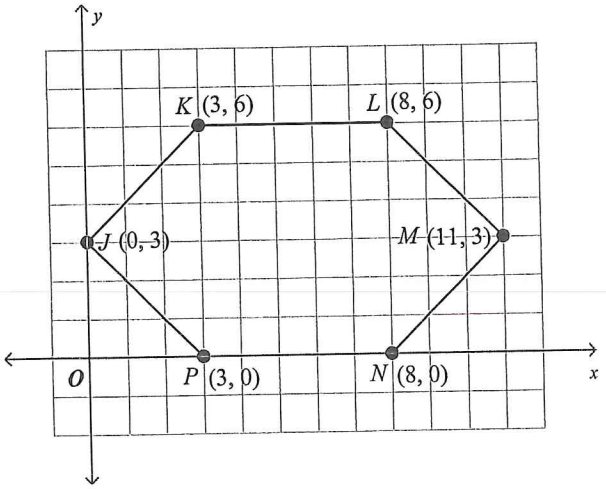
D 5.



a. 149.0 units²
b. 58.3 units²
c. 71.7 units²
d. 64.3 units²

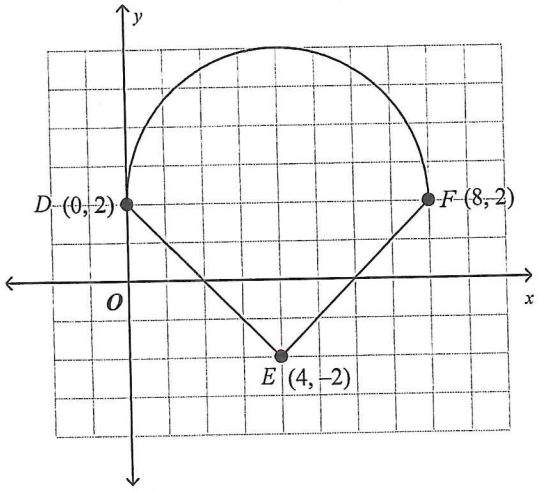
Name: _____ ID: A

B 6.



a. 51 units²
b. 48 units²
c. 102 units²
d. 96 units²

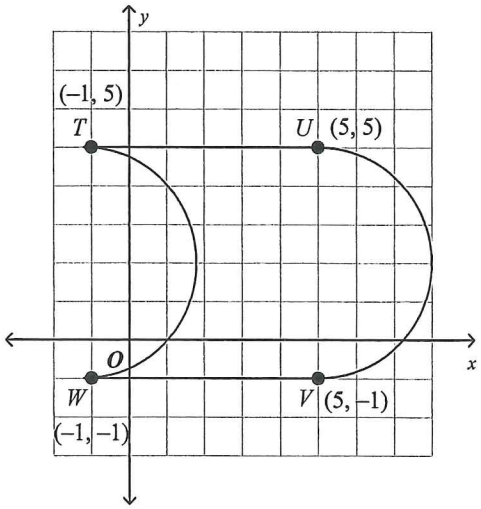
D 7.



a. 57.1 units²
b. 66.2 units²
c. 47.3 units²
d. 41.1 units²

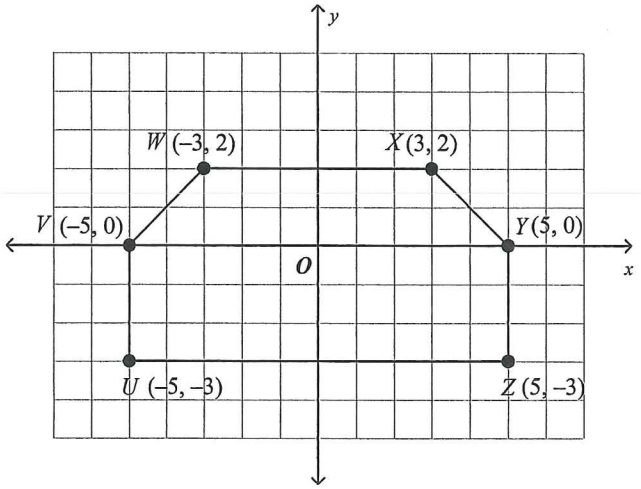
Name: _____ ID: A

A
___ 8.



a. 36 units²
b. 30 units²
c. 25 units²
d. 24 units²

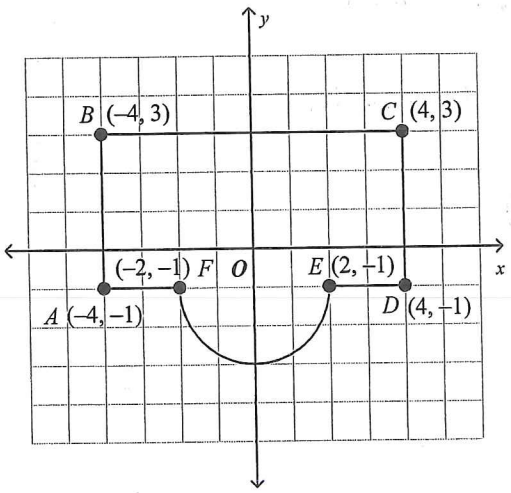
C
___ 9.



a. 42 units²
b. 44 units²
c. 46 units²
d. 50 units²

Name: _____ ID: A

C 10.



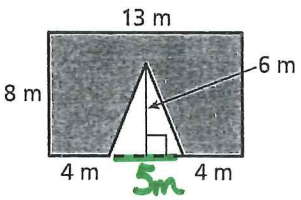
a. 44.6 units^2
b. 36.3 units^2
c. 38.3 units^2
d. 40.5 units^2

English Spanish

More Area Practice

Find the area of the figure.

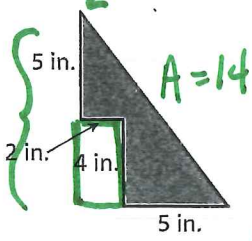
12.



$13 \times 8 - \frac{1}{2} 5 \cdot 6$

$A = 129 m^2$

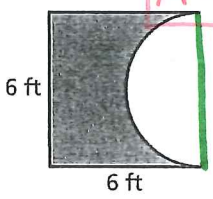
13.



$\frac{1}{2} 9 \cdot 5 - 2 \times 4$

$A = 14.5 in^2$

14.

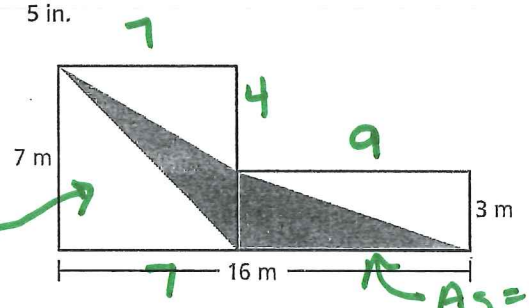


$6 \cdot 6 - \frac{1}{2} \pi 3^2$

$A = 21.9 ft^2$

TOTAL
Area of shaded
$= 10.5 + 13.5$
$= 24 m^2$

15. AREA The figure is made up of a square and a rectangle. Find the area of the shaded region.

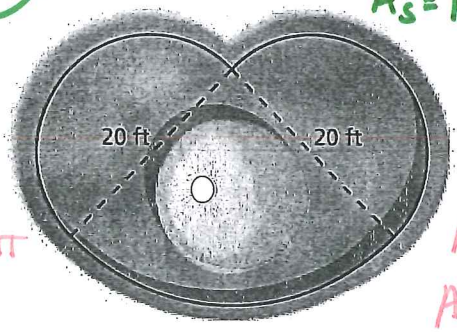


$7 \times 7 - \frac{1}{2} 7 \cdot 4 - \frac{1}{2} 7 \cdot 7$

$A_S = 10.5$

$A_S = \frac{1}{2} 3 \cdot 9$

$A_S = 13.5$



16. FOUNTAIN The fountain is made up of two semicircles and a quarter circle. Find the perimeter and area of the fountain.

$P = \frac{1}{2} C + \frac{1}{2} C + \frac{1}{4} \text{Big } C.$

$= \frac{1}{2} 20\pi + \frac{1}{2} 20\pi + \frac{1}{4} 40\pi$

$P = 30\pi ft$

$P \approx P 4.2 ft$

$A = 2 \cdot \frac{1}{2} \pi r^2 + \frac{1}{4} \pi R^2$

$A = 2 \cdot \frac{1}{2} \pi 10^2 + \frac{1}{4} \pi 20^2$

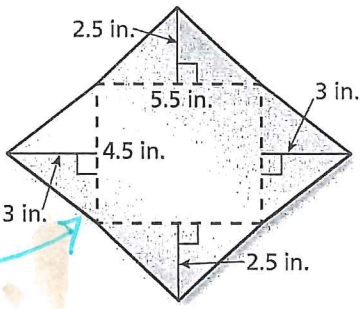
$r = 10$

$R = 20$

$100\pi + 100\pi$

$A = 200\pi = 628.3 ft^2$

17. Critical Thinking You are deciding on two different designs for envelopes.

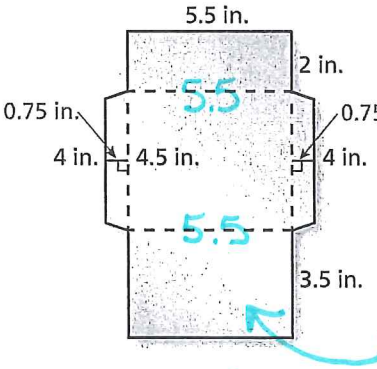


$A = 2 \cdot \frac{1}{2} 5.5 \times 2.5 + 2 \cdot \frac{1}{2} 4.5 \times 3 + 4.5 \times 5.5$

$A = 52 in^2$

$\times 500$

$26{,}000 in^2$



$2 \cdot \frac{1}{2} \cdot 75 (4 + 4.5) + 2 \times 5.5 + 4.5 \times 5.5 + 3.5 \times 5.5$

$A = 61.375 in^2$

$\times 500$

$60{,}687.5 in^2$

a. Which design has the greater area? The $A = 61.375 in^2$

b. You make 500 envelopes using the design with the greater area. Using the same amount of paper, how many more envelopes can you make with the other design?

$60\,687.5 \div 52$

$1167.1 - 500$

667.1 more envelopes

Fair Game Review What you learned in previous grades & lessons

Write the phrase as an expression. SECTION 1.2

18. 12 less than a number x

19. a number y divided by 6

20. a number b increased by 3

21. the product of 7 and a number w

22. MULTIPLE CHOICE What is 0.02% of 50? SECTION 4.4

Ⓐ 0.01 Ⓑ 0.1 Ⓒ 1 Ⓓ 100