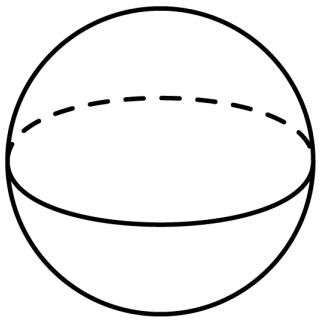
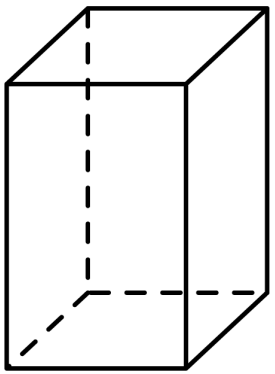
1. 다음의 입체도형 중 사면체인 것은?

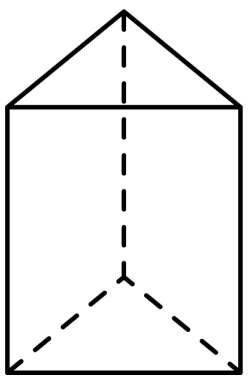
①



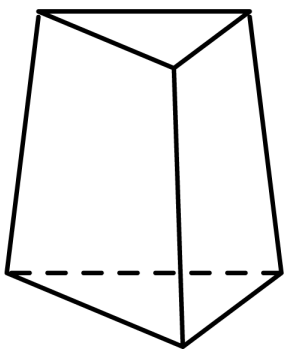
②



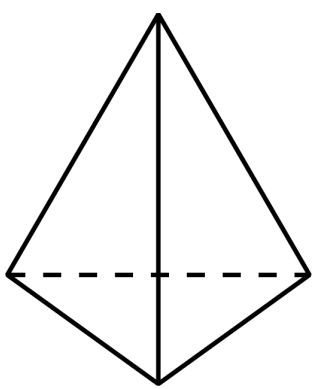
③



④



⑤



2. 다음 중 입체도형과 그 옆면을 이루는 다각형이 잘못 짝지어진 것은?

① 삼각뿔대-사다리꼴
② 삼각뿔 - 삼각형
③ 정사각뿔 - 이등변삼각형
④ 사각기둥 - 직사각형
⑤ 오각기둥 - 오각형

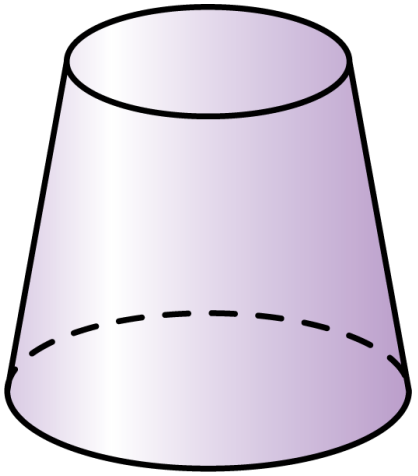
3. 다음 보기 중에서 회전체는 모두 몇 개인가?

보기

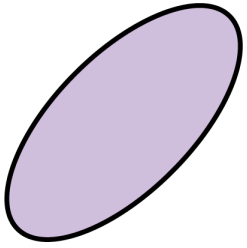
구	원기둥	삼각뿔
사각기둥	원뿔	사각뿔
원뿔대	정사면체	

답: _____ 개

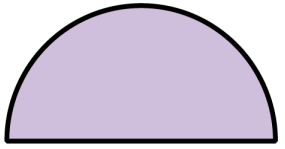
4. 다음 그림과 같은 원뿔대를 평면으로 자른 단면이 <u>아닌</u> 것은?



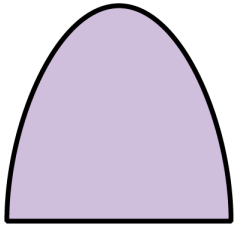
①



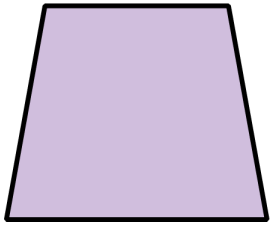
②



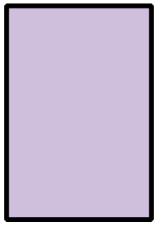
③



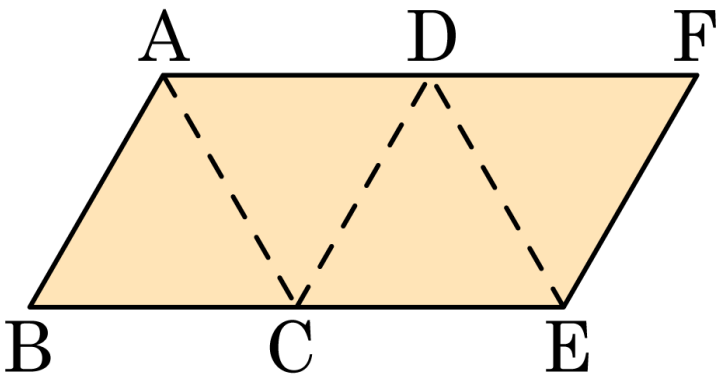
④



⑤



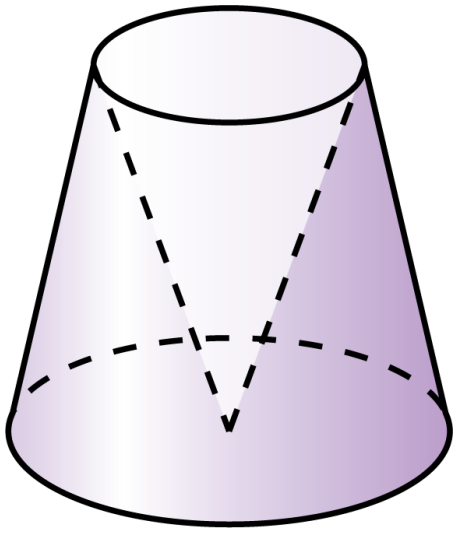
5. 다음 전개도로 만들어진 입체도형에서 모서리 AB 와 겹치는 모서리는?



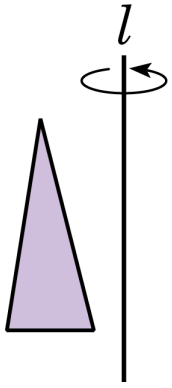
① 모서리 BC ② 모서리 CE ③ 모서리 EF

④ 모서리 DF ⑤ 모서리 AD

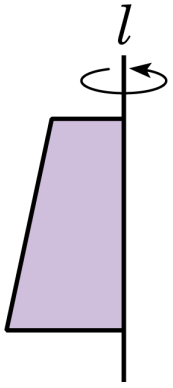
6. 다음 그림과 같은 회전체는 다음 중 어느 도형을 회전시킨 것인가?



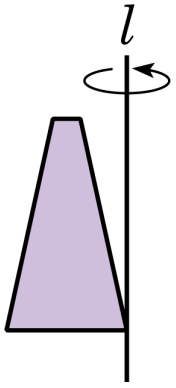
①



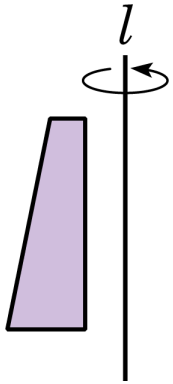
②



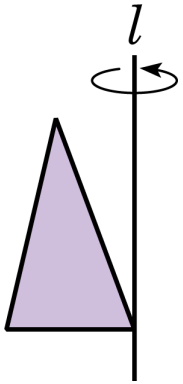
③



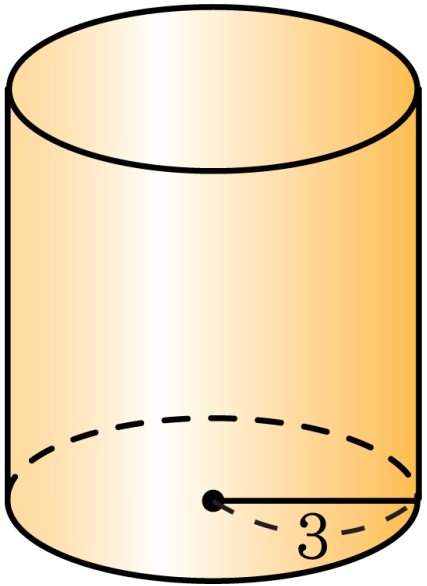
④



⑤

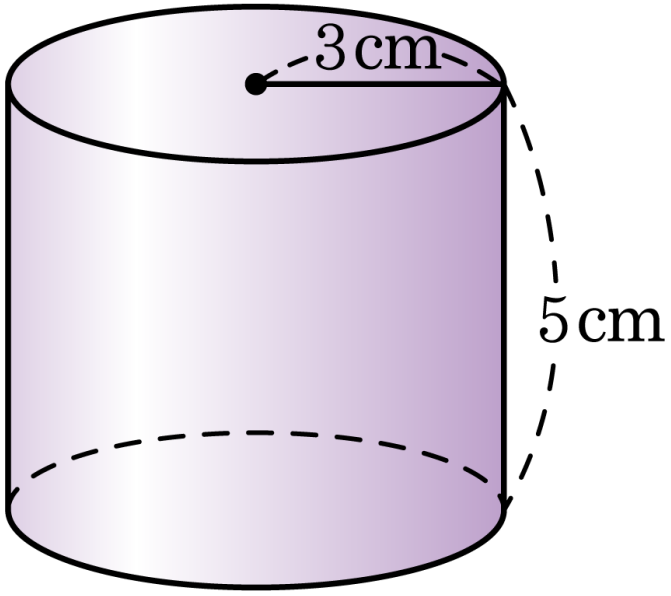


7. 밑면의 반지름의 길이가 3 인 원기둥을 회전축에 수직인 평면으로 자를 때 생기는 단면의 넓이가 $a\pi$ 일 때, a 값을 구하여라.



답: _____

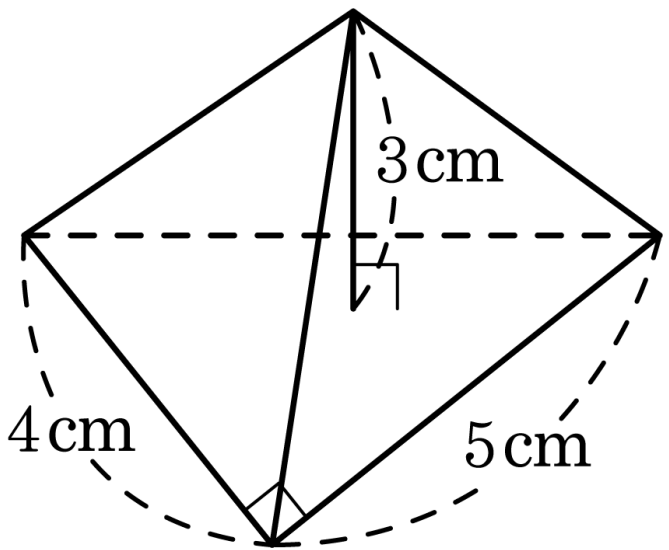
8. 다음 그림과 같이 반지름의 길이가 3cm, 높이가 5cm 인 원기둥의 겉넓이는?



① $15\pi\text{cm}^2$ ② $18\pi\text{cm}^2$ ③ $30\pi\text{cm}^2$

④ $45\pi\text{cm}^2$ ⑤ $48\pi\text{cm}^2$

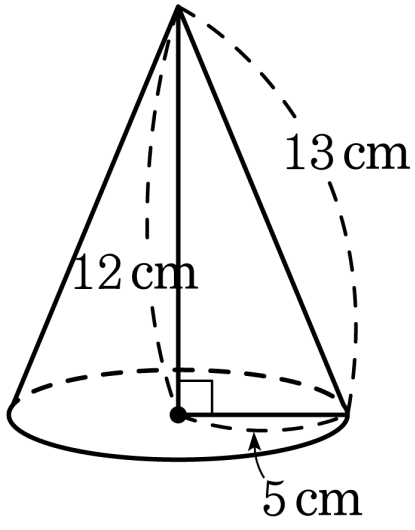
9. 다음 그림과 같은 삼각뿔의 부피는?



① 9cm^3 ② 10cm^3 ③ 11cm^3

④ 12cm^3 ⑤ 14cm^3

10. 다음 원뿔의 부피를 구하면?



① $50\pi\,\text{cm}^3$ ② $75\pi\,\text{cm}^3$

③ $100\pi\,\text{cm}^3$ ④ $125\pi\,\text{cm}^3$

⑤ $140\pi\,\text{cm}^3$

11. 밑면인 다각형의 대각선의 총수가 14개인 각뿔은 몇 면체인지 구하여라.

답: _____

12. 십각뿔의 모서리의 개수를 a개 , 오각뿔의 모서리의 개수를 b 개, 사각기둥의 모서리의 개수를 c 개라고 할 때, $\frac{a}{b} \times c$ 의 값을 구하여라.

답: _____

13. 다음 보기에서 연결이 옳지 <u>않은</u> 것은?

보기

(가) 한 꼭짓점에 정삼각형이 3 개 모이는 정다면체

(나) 한 꼭짓점에 정삼각형이 4 개 모이는 정다면체

(다) 한 꼭짓점에 정삼각형이 5 개 모이는 정다면체

(라) 한 꼭짓점에 정사각형이 3 개 모이는 정다면체

(마) 한 꼭짓점에 정오각형이 3 개 모이는 정다면체

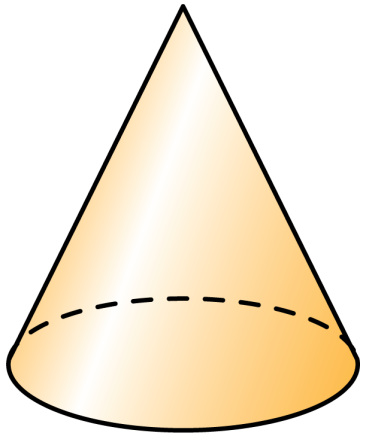
ⓐ 정사면체 ⓑ 정육면체 ⓒ 정팔면체

ⓓ 정십면체 ⓔ 정십이면체 ⓕ 정이십면체

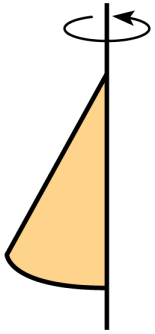
① (가) - ⓐ ② (나) - ⓒ ③ (다) - ⓕ

④ (라) - ⓓ ⑤ (마) - ⓔ

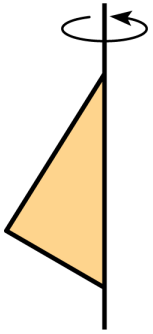
14. 다음 회전체는 다음 중 어떤 도형을 회전시킬 때, 생기는 입체도형인가?



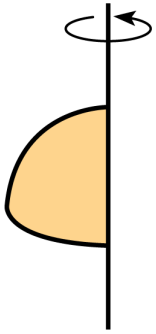
①



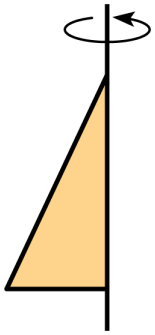
②



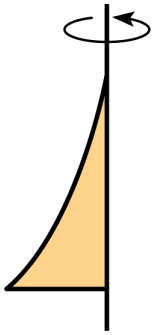
③



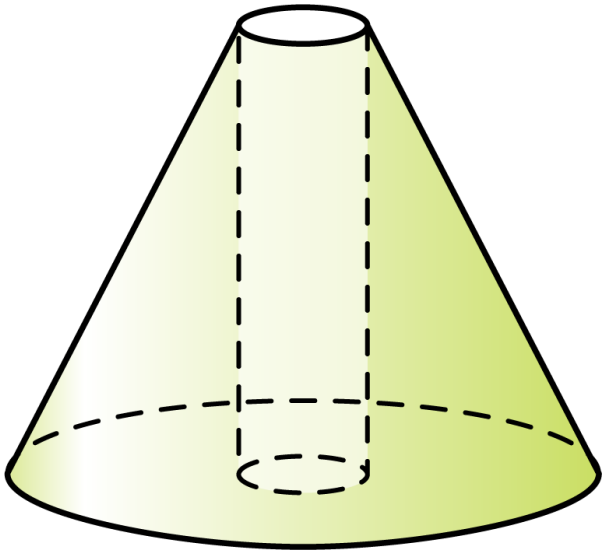
④



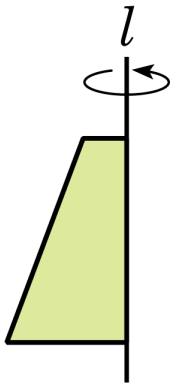
⑤



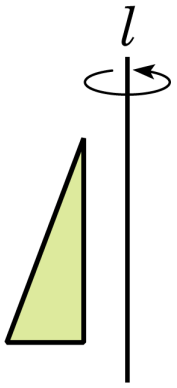
15. 다음 입체도형은 어떤 도형을 회전시킨 것인가?



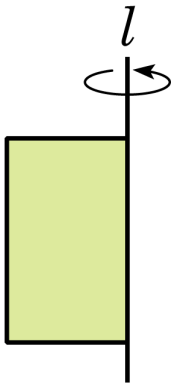
①



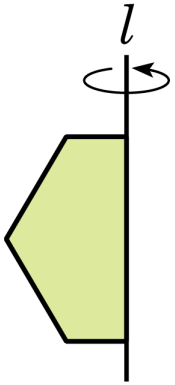
②



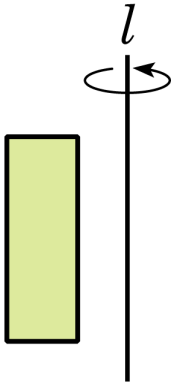
③



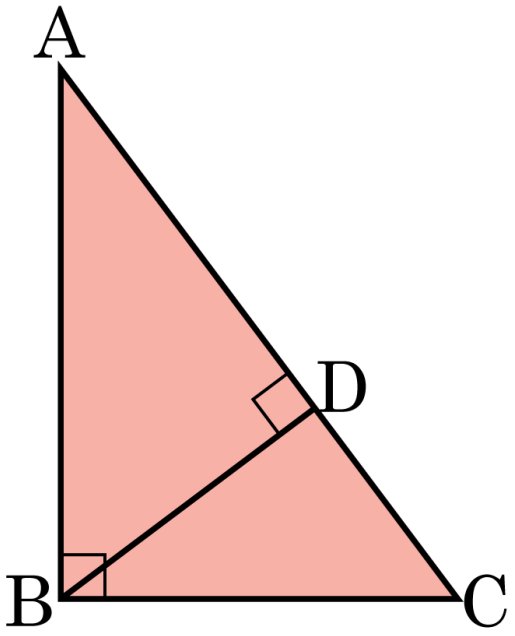
④



⑤



16. 아래 그림과 같은 직각삼각형 ABC 를 보기와 같이 직선을 축으로 하여 회전시켰을 때, 원뿔이 되는 것은 모두 몇 개인가?

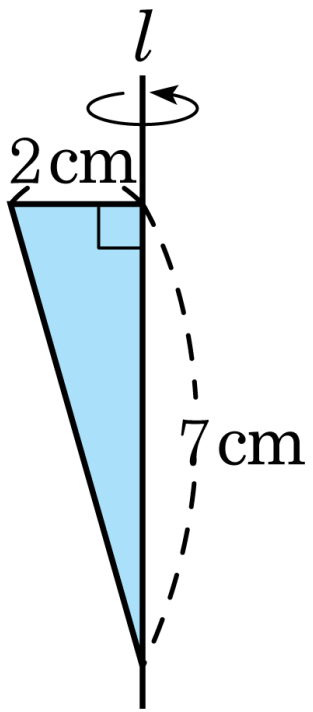


보기

㉠ $\overleftrightarrow{AC}$ ㉡ $\overleftrightarrow{BC}$ ㉢ $\overleftrightarrow{AB}$ ㉣ $\overleftrightarrow{BD}$

① 0 개 ② 1 개 ③ 2 개 ④ 3 개 ⑤ 4 개

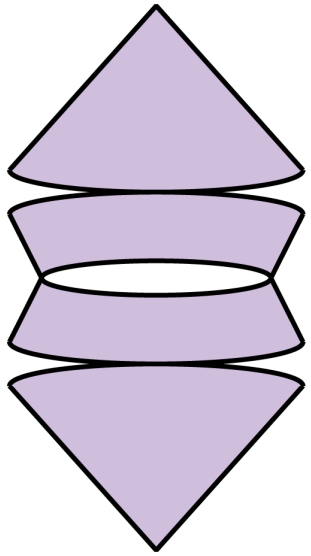
17. 다음 그림과 같은 평면도형을 직선 l 을 축으로 하여 회전시켰을 때 생기는 입체도형을 축을 포함하는 평면으로 자른 단면의 넓이는?



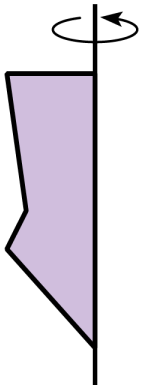
① 2cm^2 ② 7cm^2 ③ 10cm^2

④ 14cm^2 ⑤ 28cm^2

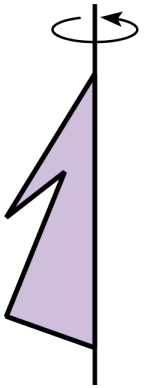
18. 다음 그림은 어느 회전체의 전개도이다. 다음 중 어느 평면도형을 회전시켜서 얻어진 것인가?



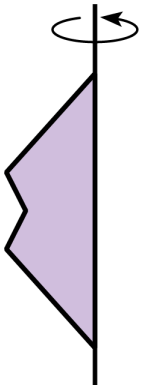
①



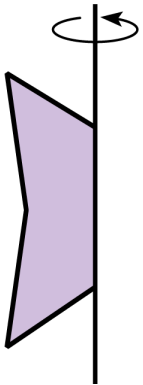
②



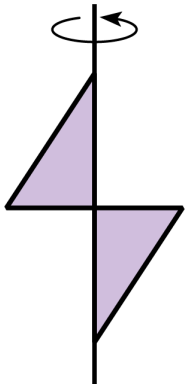
③



④



⑤



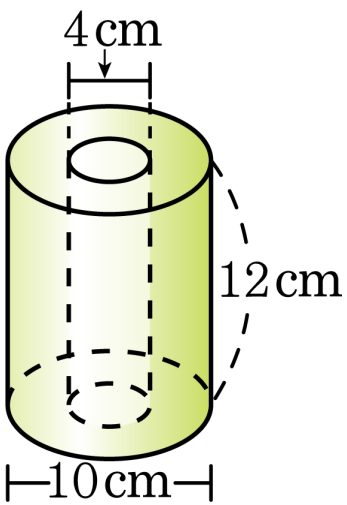
19. 회전체에 대한 설명 중 옳지 <u>않은</u> 것을 모두 고르면?

㉠ 회전체는 원기둥, 원뿔, 사각기둥으로 3가지 밖에 없다. ㉡ 평면도형을 한 직선을 회전축으로 하여 1회전시킬 때 생기는 입체도형을 회전체라고 한다. ㉢ 회전축을 포함하는 평면으로 자른 단면은 항상 원이다. ㉣ 회전축을 포함하는 평면으로 자른 단면은 회전축에 대하여 선대칭도형이다. ㉤ 구는 어떤 모양으로 잘라도 그 단면의 모양이 항상 정사각형이다.

① ㉠, ㉡　　② ㉠, ㉡, ㉢　　③ ㉠, ㉡, ㉣

④ ㉠, ㉢, ㉤　　⑤ ㉢, ㉣, ㉤

20. 다음 그림과 같이 속이 뚫린 입체도형의 겉넓이를 구하여라.



답: _____ cm^2