13주차

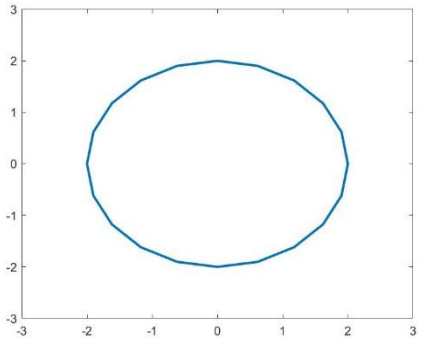
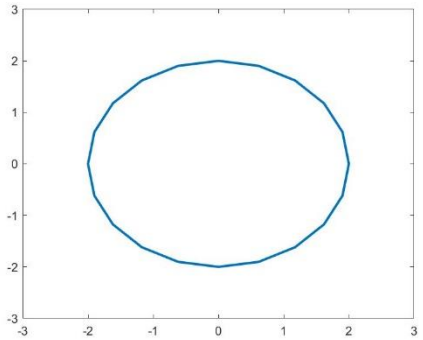
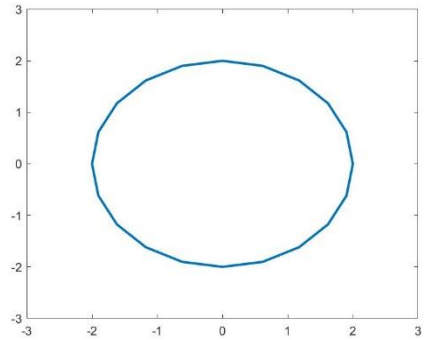
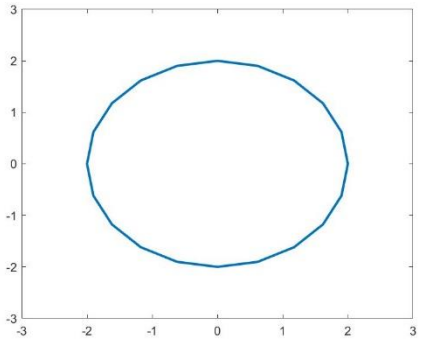
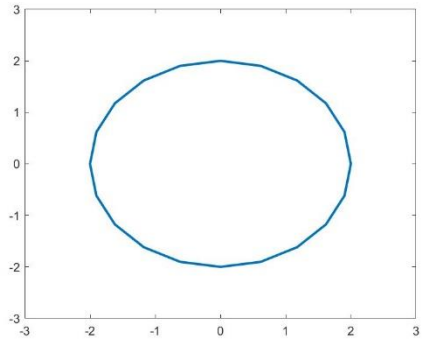
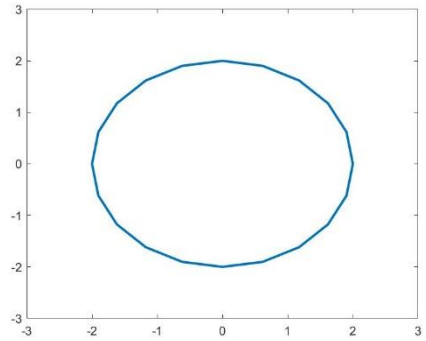
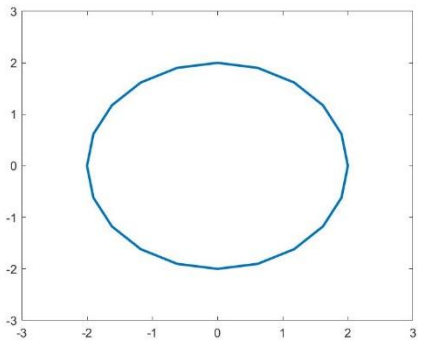
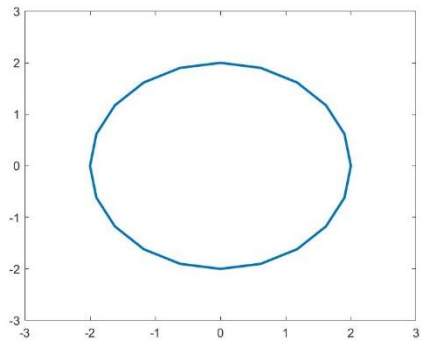
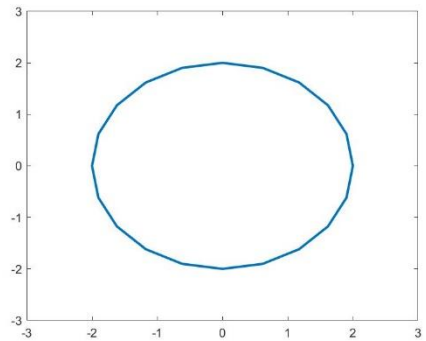
2차원 횡단면의 3차원 복원

13. 다양한 도형에 적용 및 오차분석

Department of Mathematics
Gyeongsang National University
Group 3

원기둥

단면

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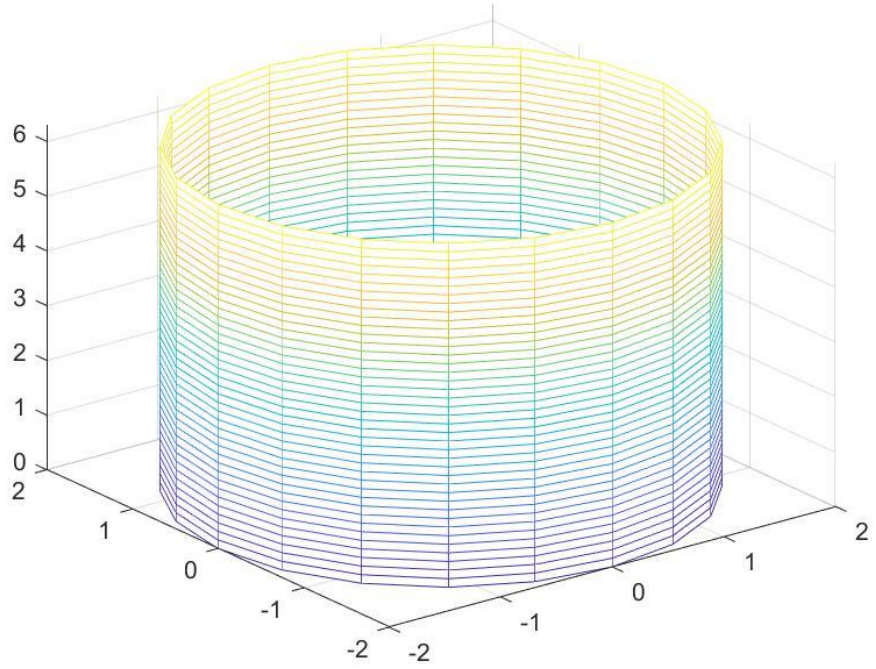

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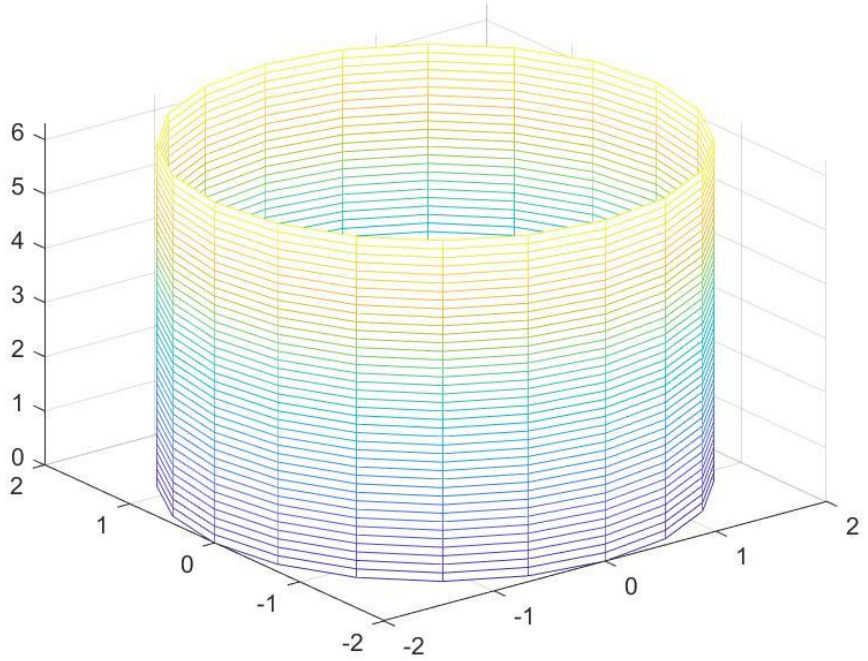
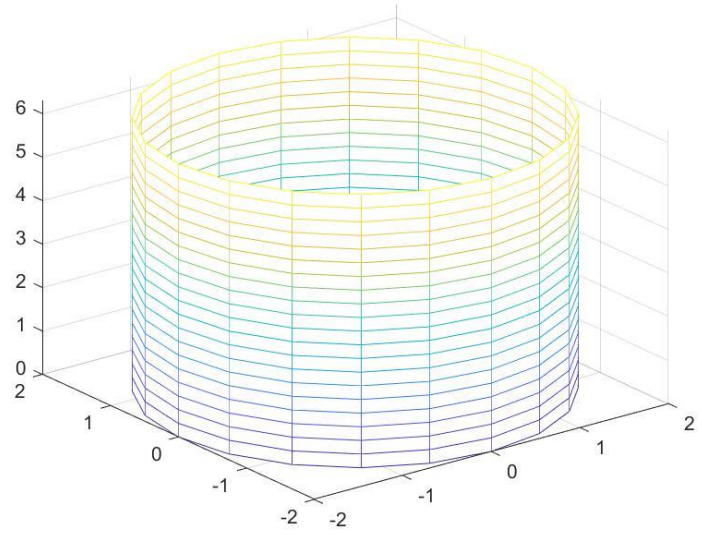


보간 결과

최소자승법: *Polynomial*



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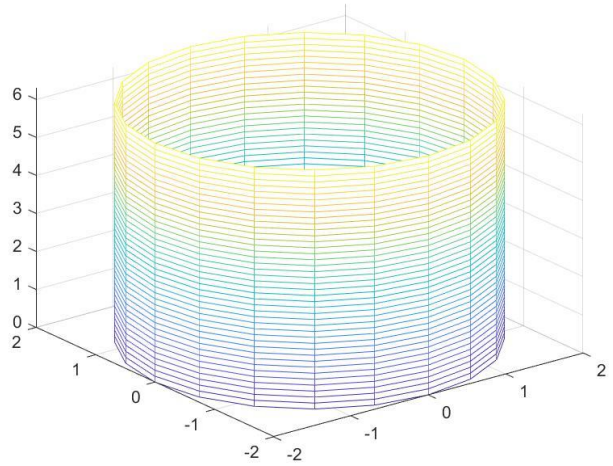
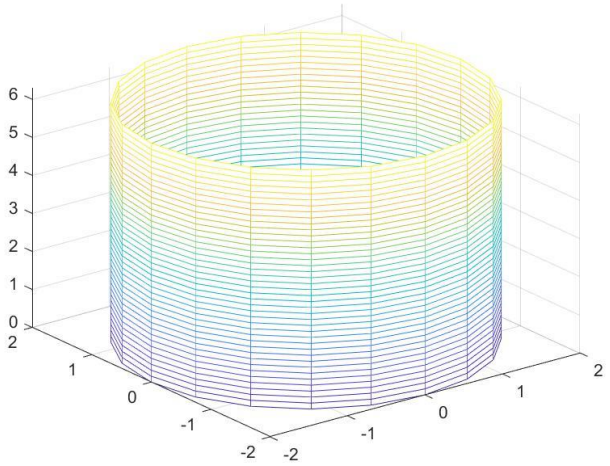


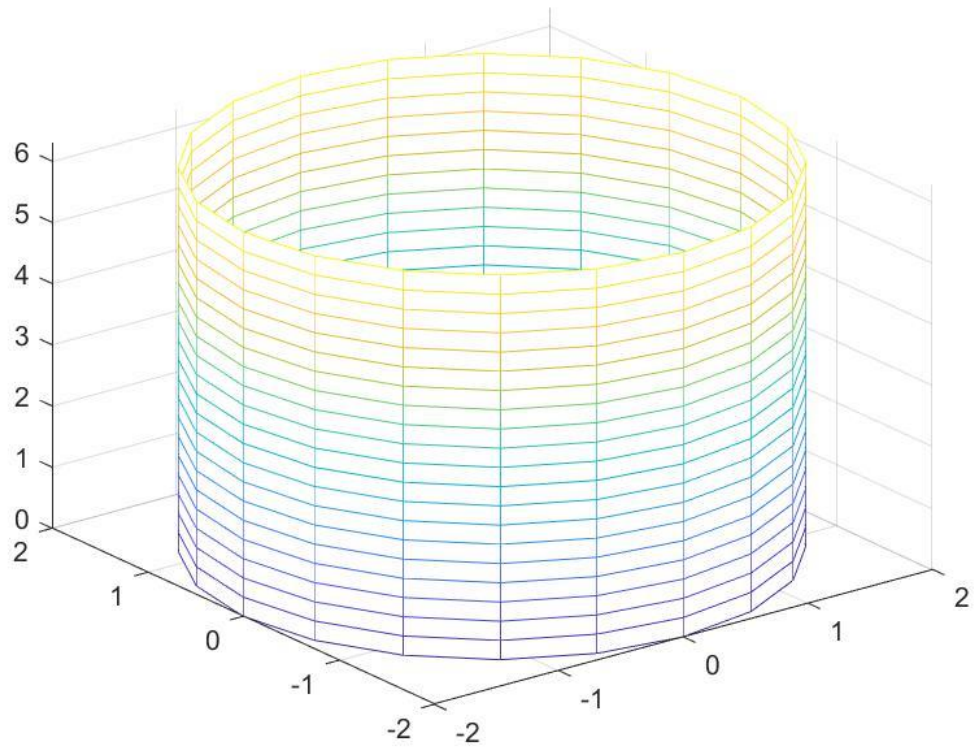
선형보간



2차 다항식

선형 보간과 2차 보간의 결과가 같으므로 더 이상의 차수는 무의미해 진행하지 않음.

최소자승법: $y = e^{ax}$



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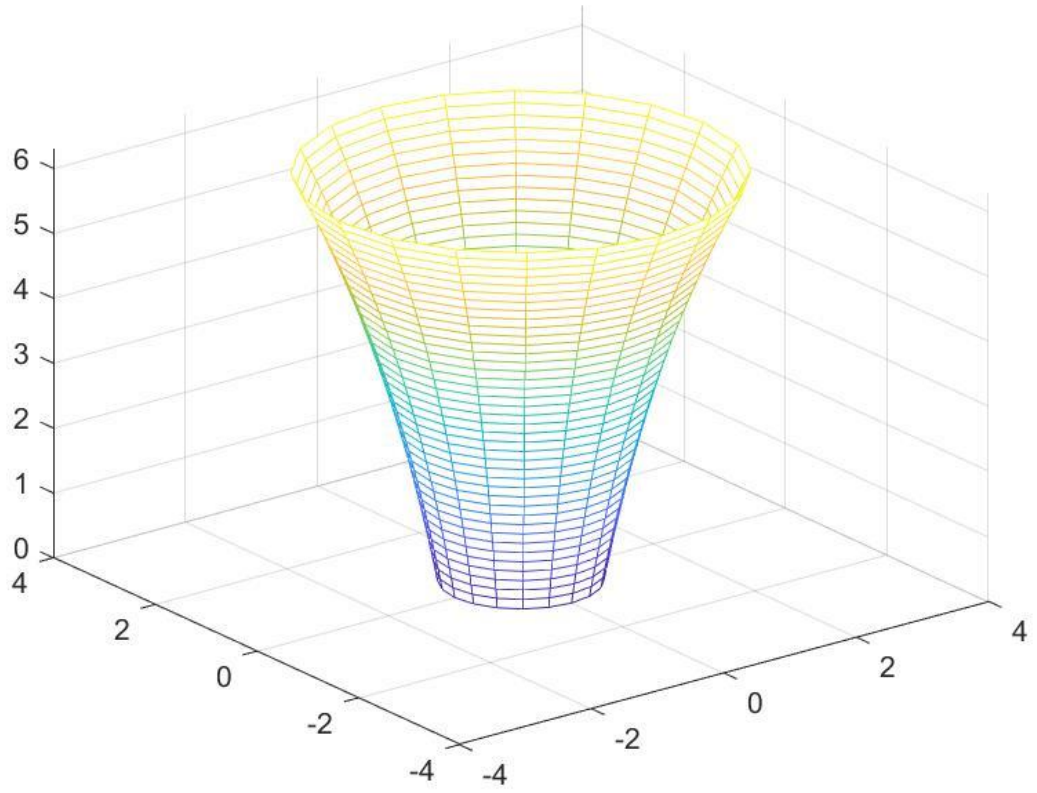
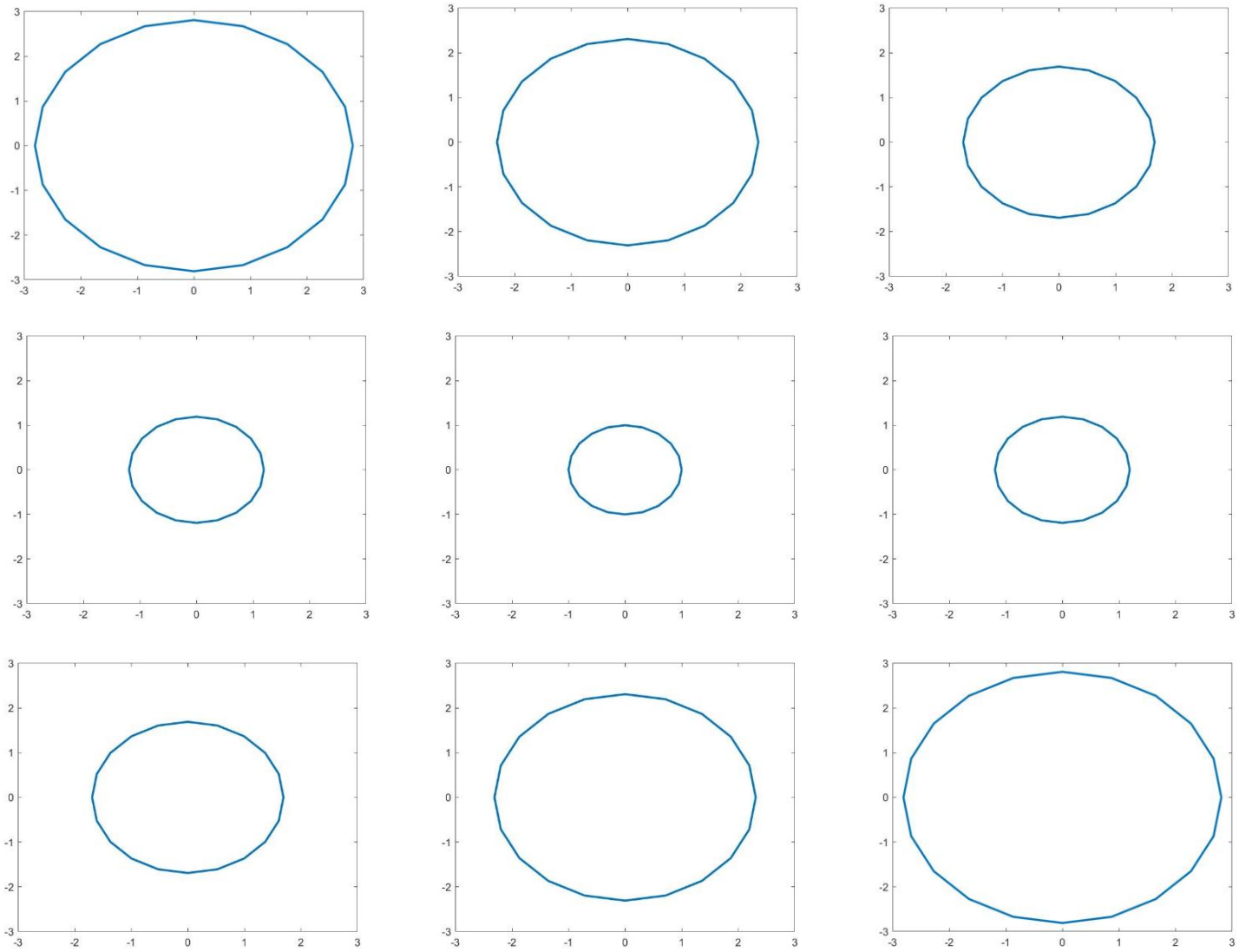


보간 결과

변형된 원기둥

단면



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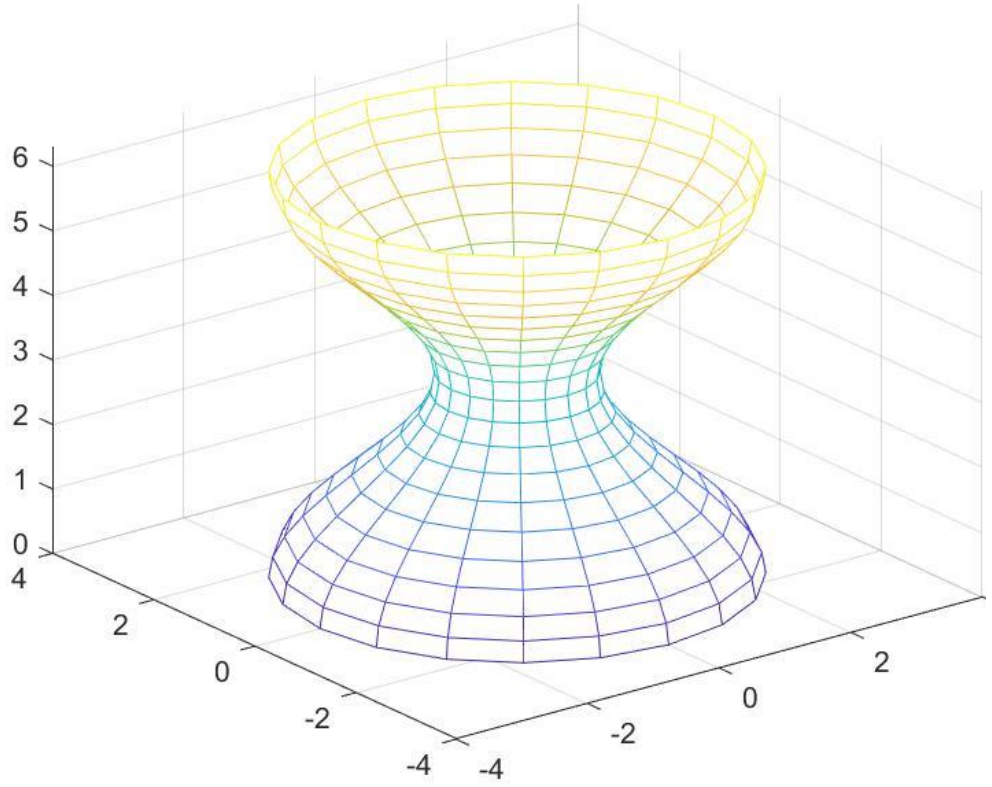

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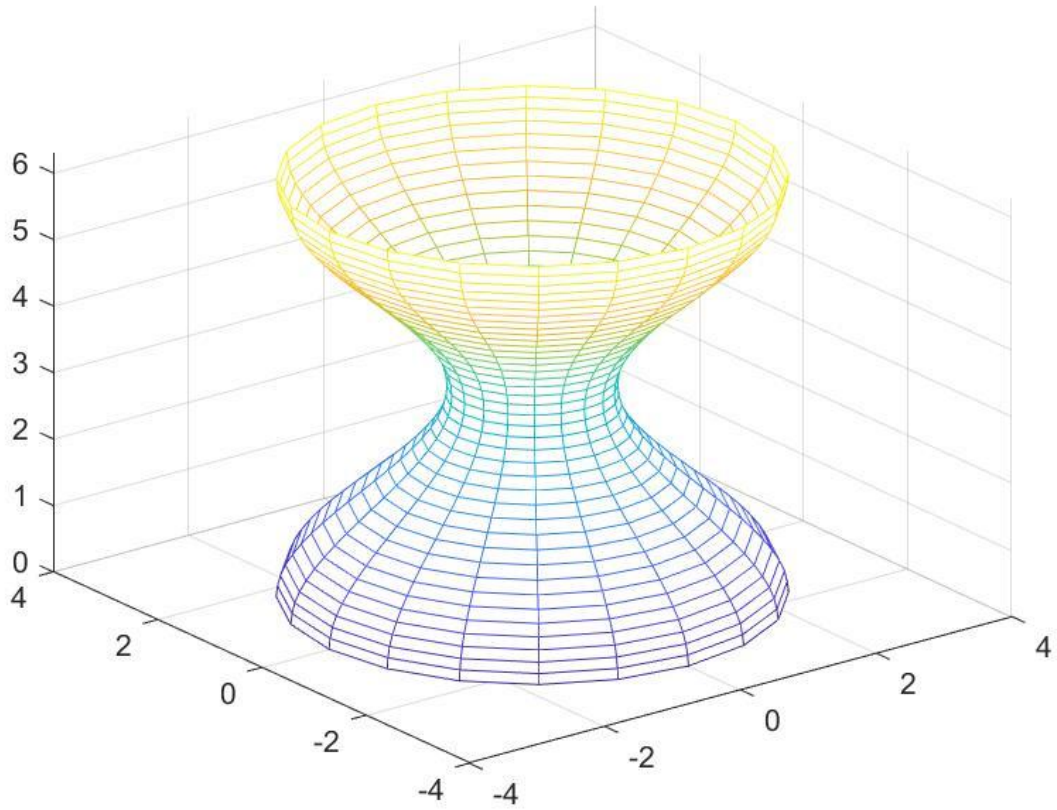
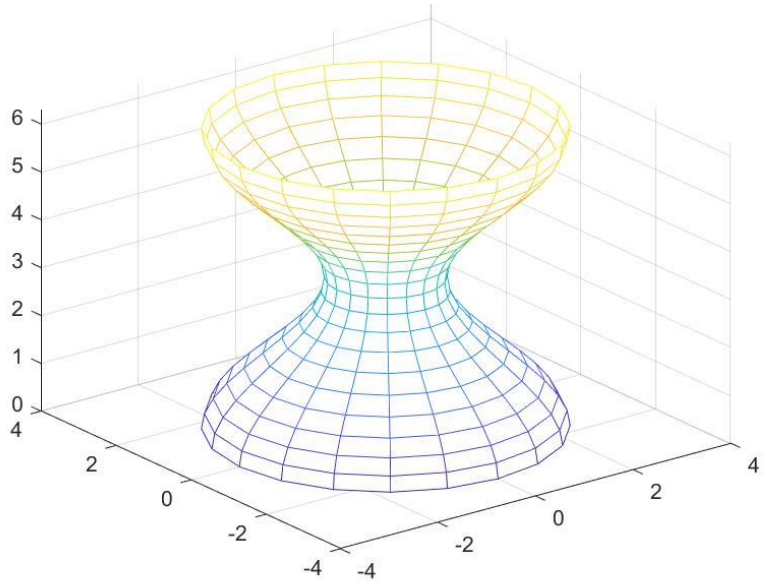


보간 결과

최소자승법: *Polynomial*



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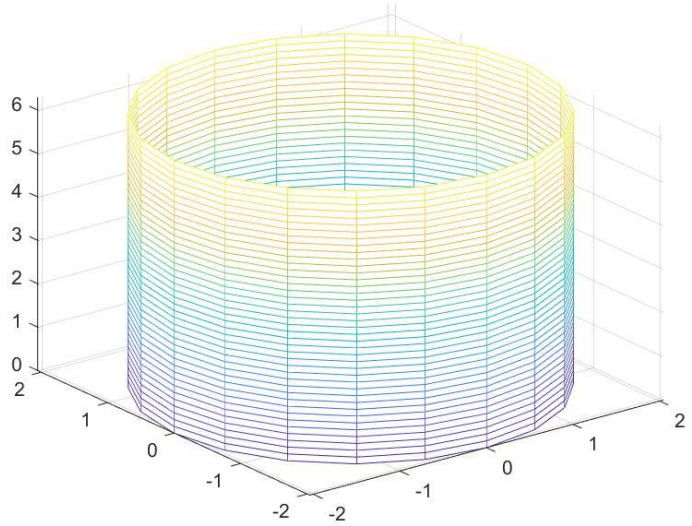

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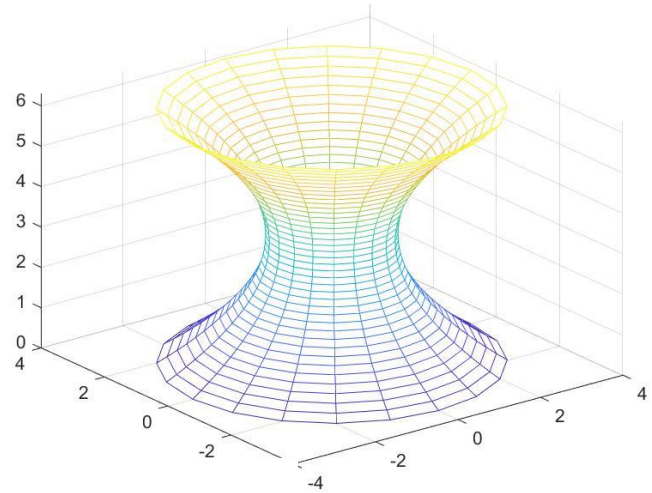
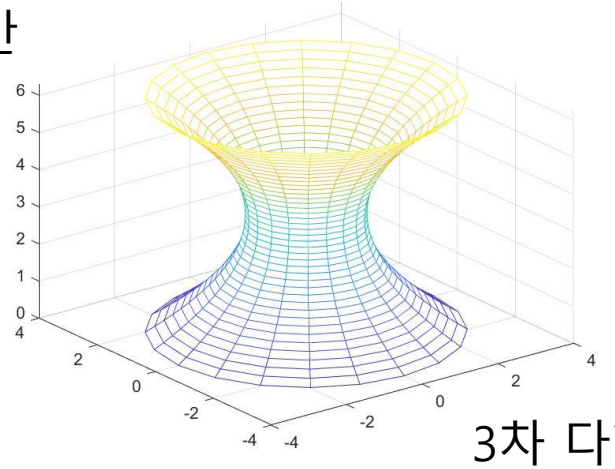


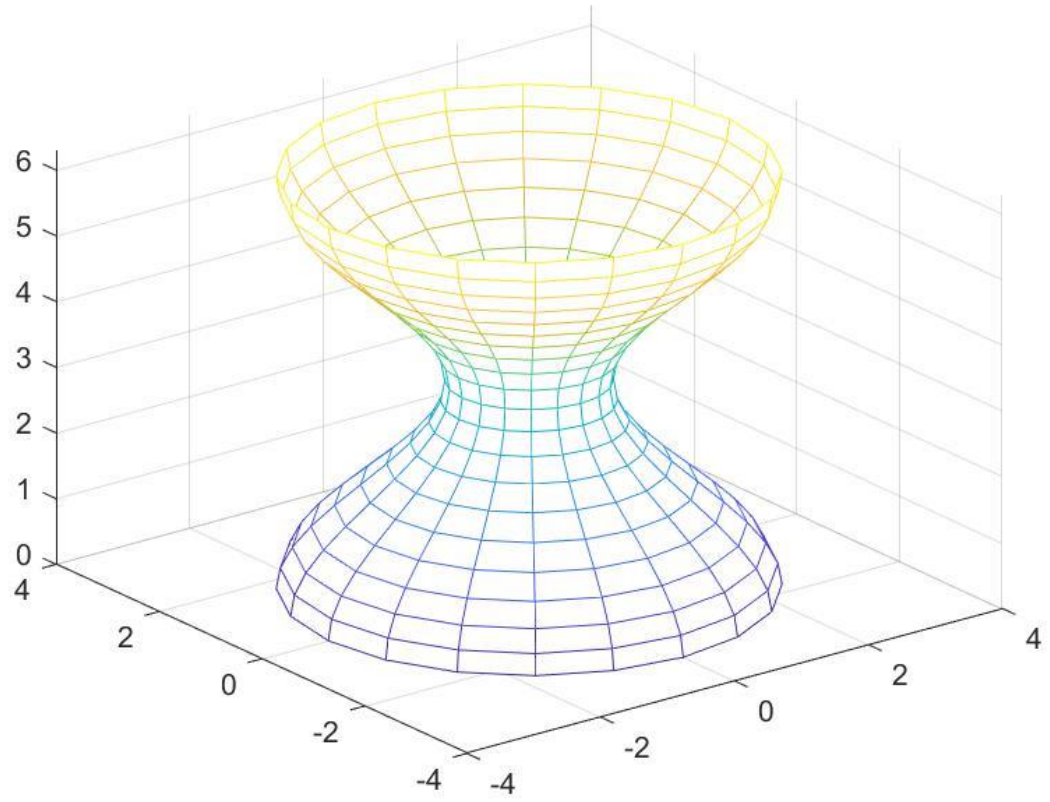
2차 다항식



3차 다항식

2차 보간과 3차 보간의 결과가 같으므로 더 이상의 차수는 무의미해 진행하지 않음.

최소자승법: $y = e^{ax}$



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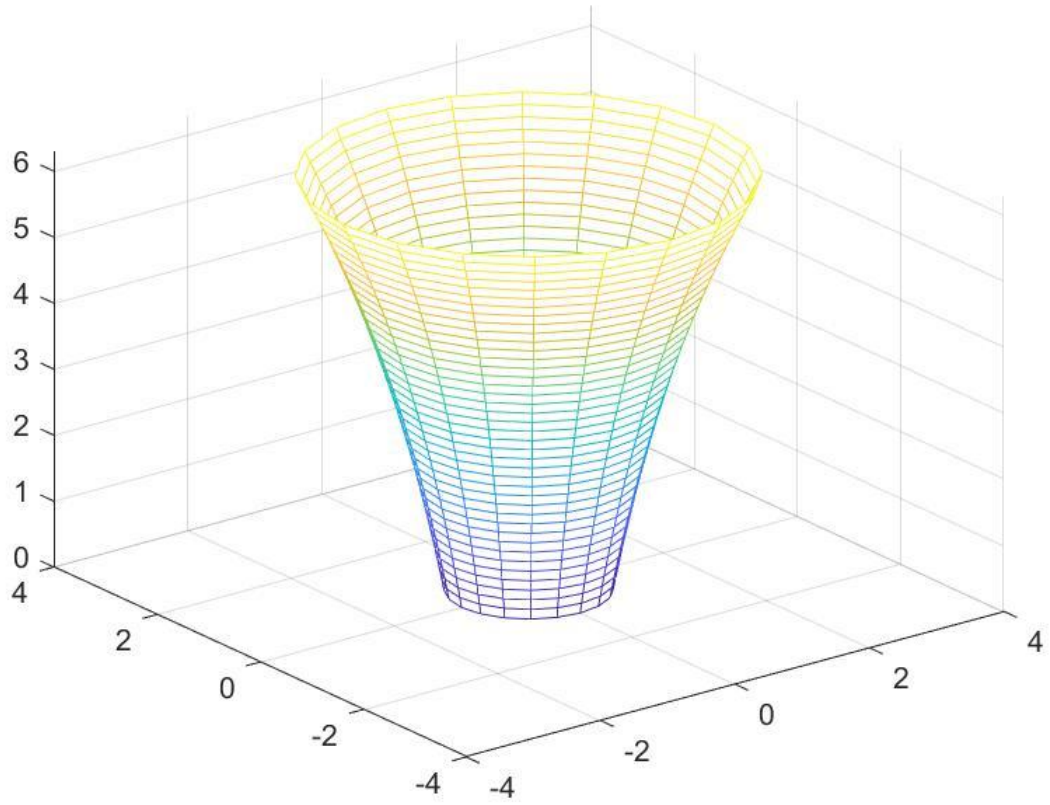
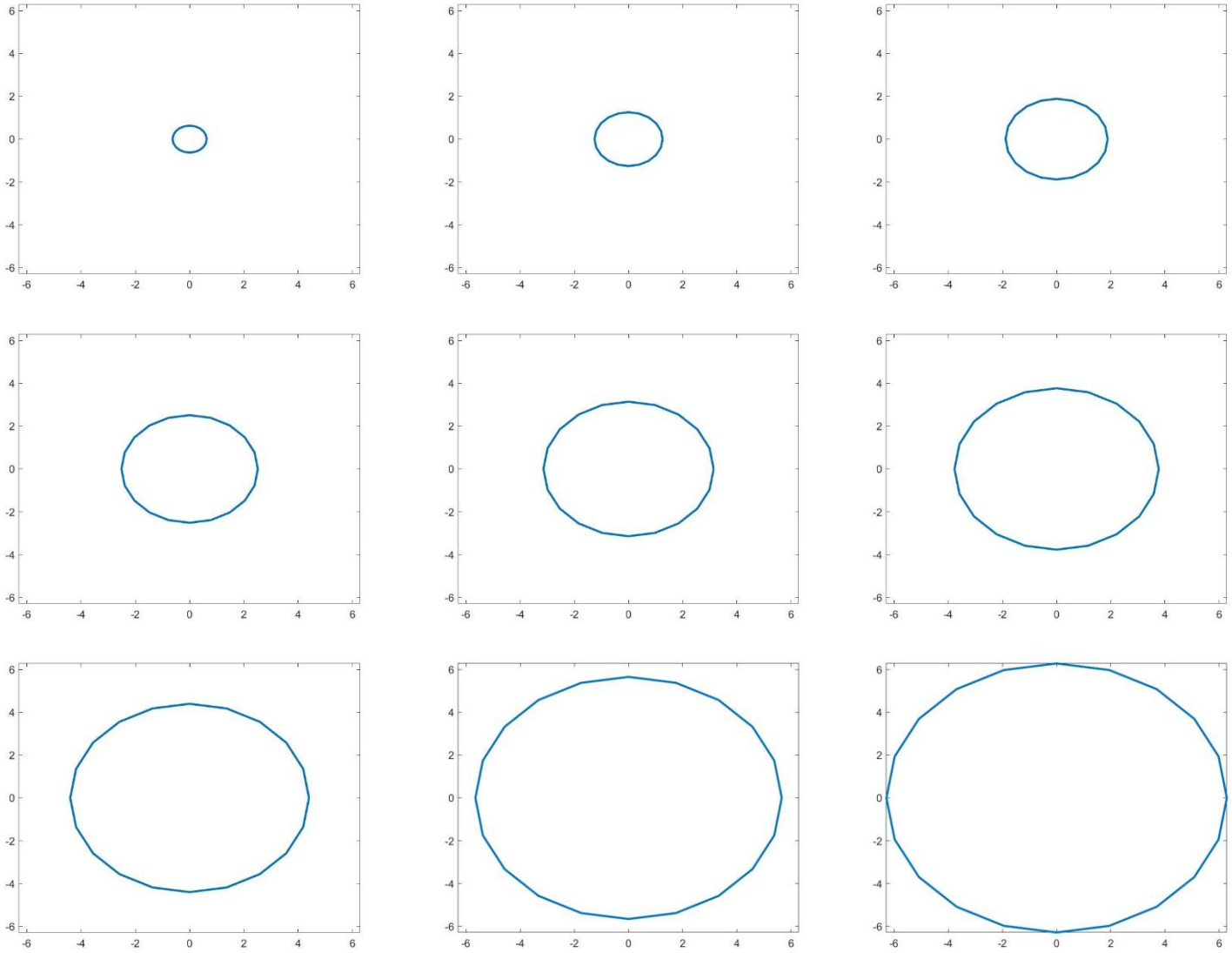


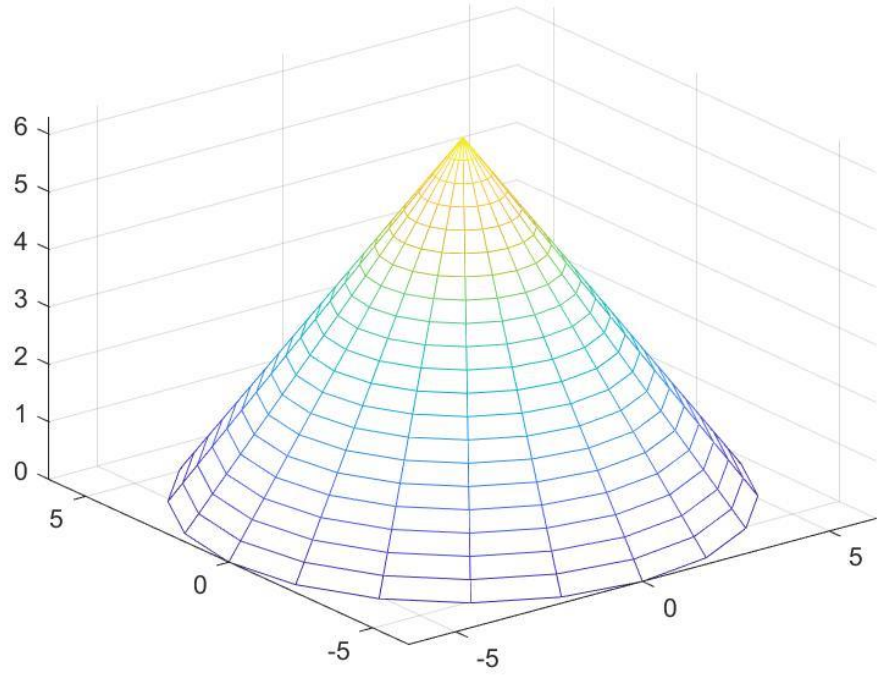
보간 결과

원뿔

단면



3차 스플라인



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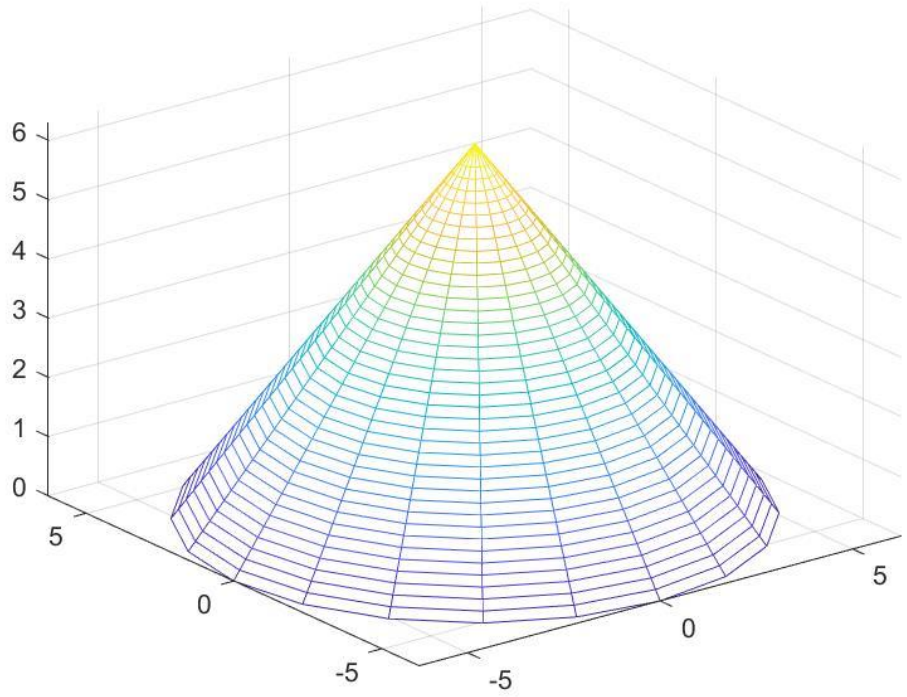
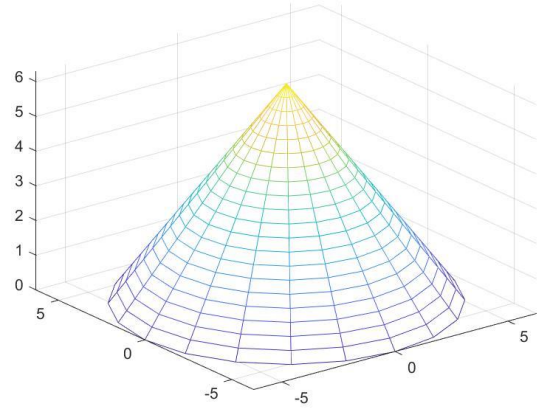


보간 결과

최소자승법: *Polynomial*



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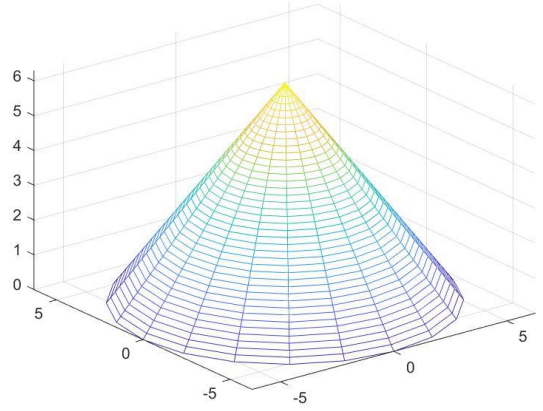
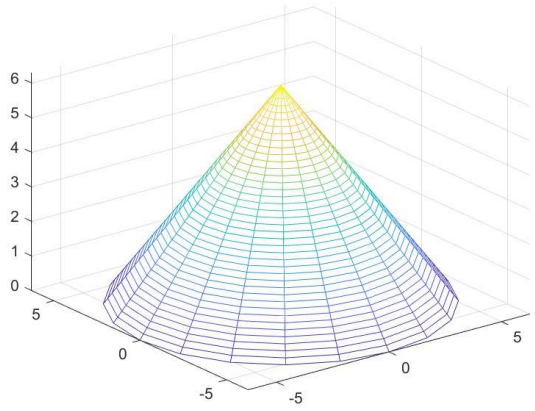


선형보간

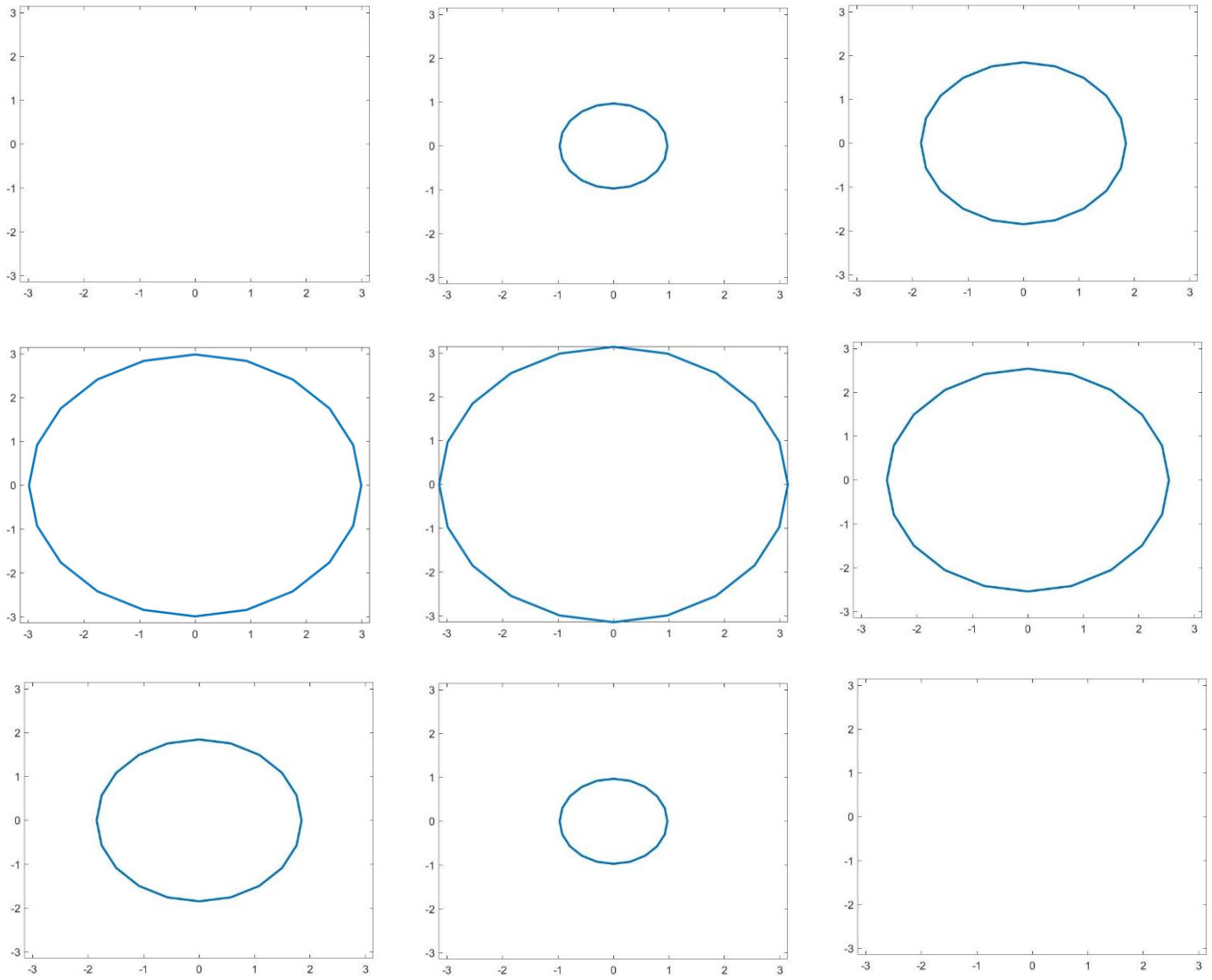


2차 다항식

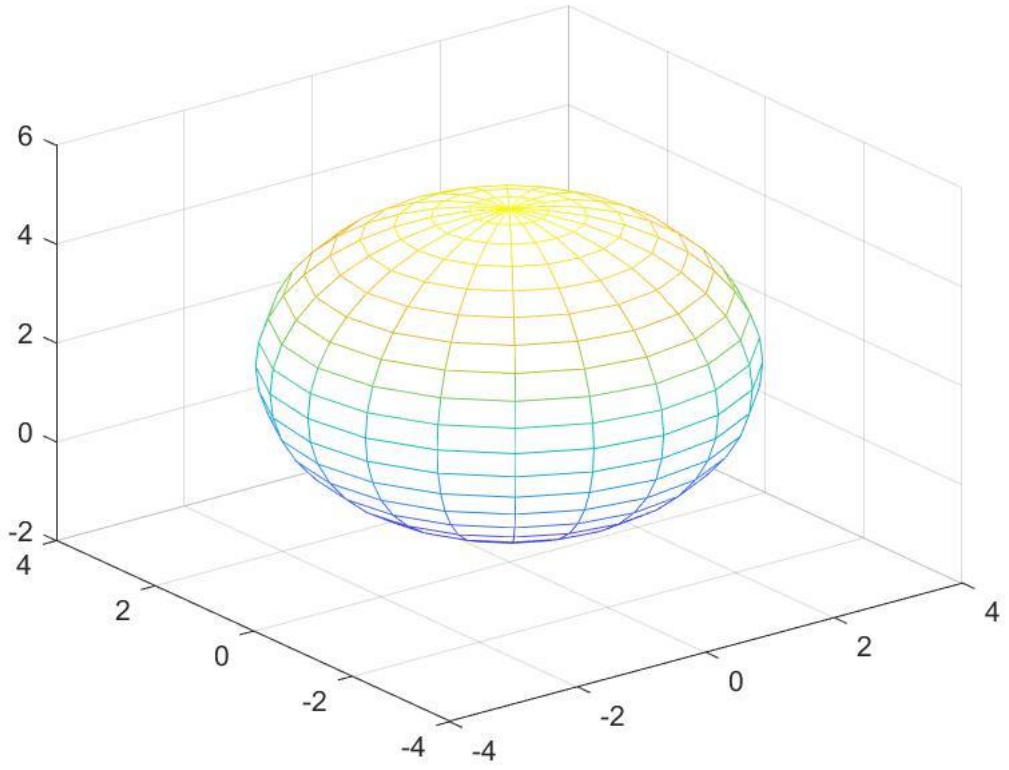
선형 보간과 2차 보간의 결과가 같으므로 더 이상의 차수는 무의미해 진행하지 않음.

구

단면



3차 스플라인



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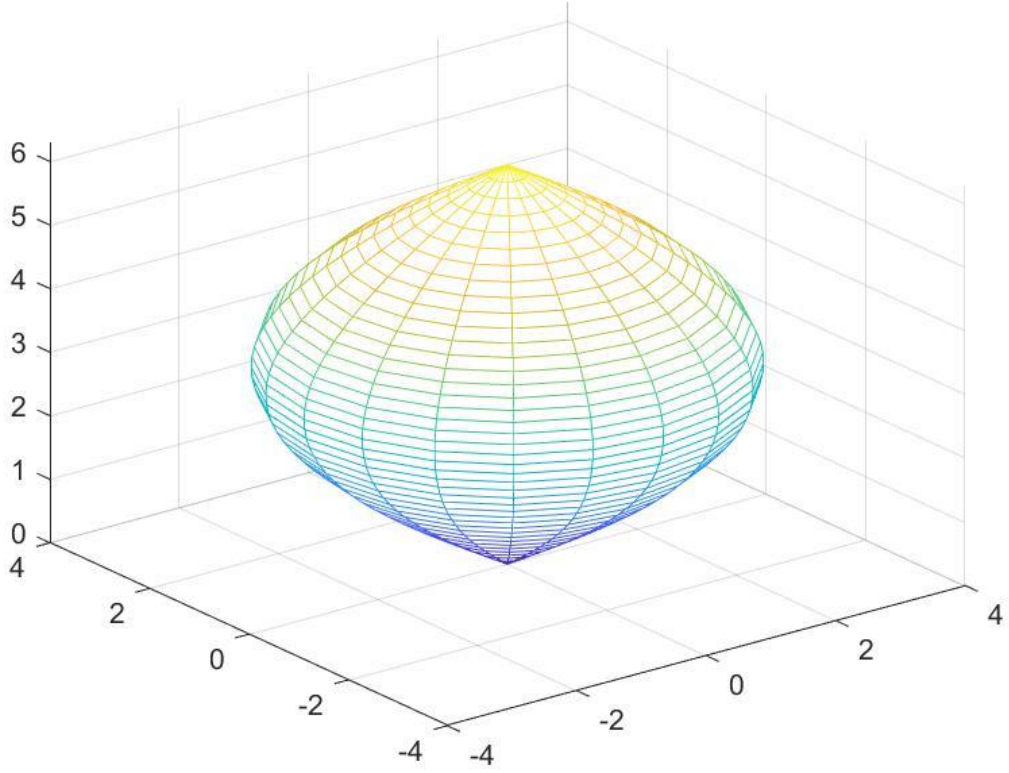
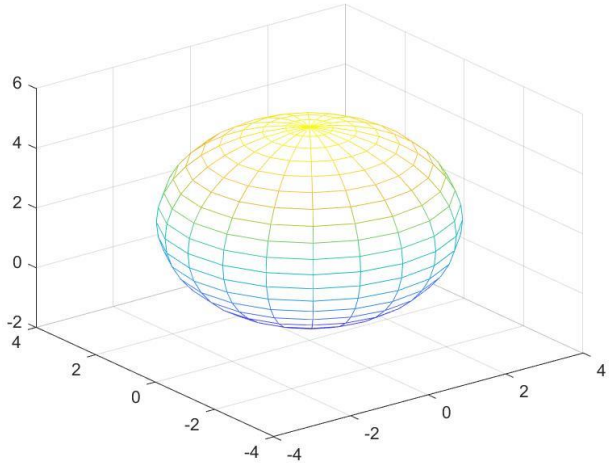


보간 결과

최소자승법: *Polynomial*



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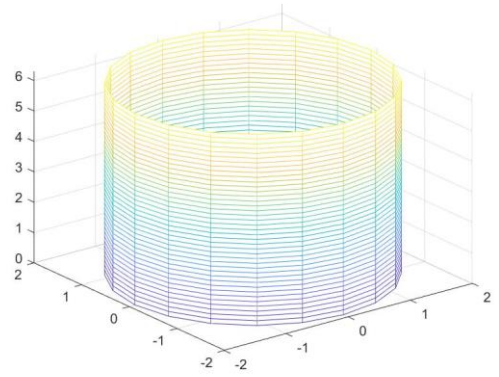

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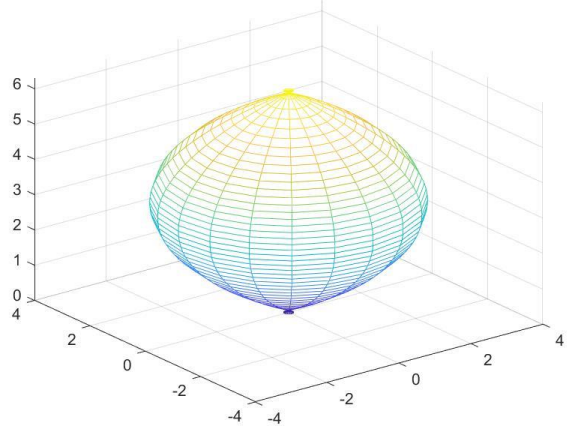
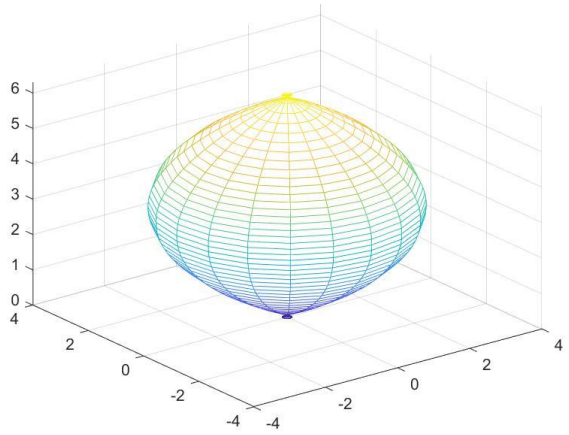


2차 다항식



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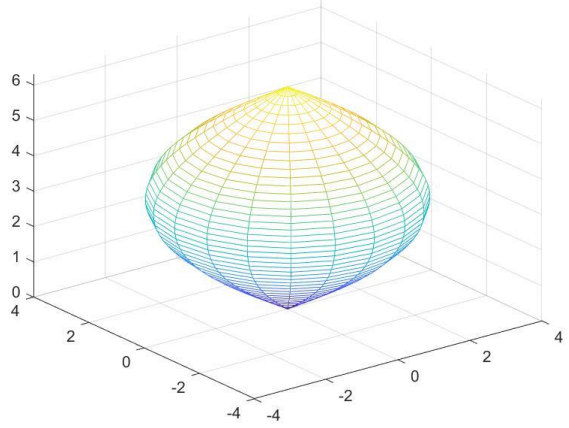

4차 다항식

고차 다항식의 계수가 다 같게 나오지는 않으나 더 이상의 고차 다항식은 무의미해 보인다.

Thank you!