Exercise 1 (5 points)
Using three rectangles and left endpoints the area under the curve \( y = x^2 \) from 0 to 1 is approximately equal:

<p>| | |</p>
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a/ 5/9 |   |
b/ 5/27 |   |
c/ 14/27 |   |
d/ 35/36 |   |
e/ 10/27 |   |

Exercise 2 (5 points)
Evaluate the integral \( \int_{0}^{\pi} \frac{1 - \sin^2 x}{1 + \sin x} \) (show all your steps)
Exercise 1 (5 points)
Using three rectangles and mid-points the area under the curve \( y = x^2 \) from 0 to 1 is approximately equal:

- a/ \( \frac{5}{27} \)
- b/ \( \frac{14}{27} \)
- c/ \( \frac{35}{108} \)
- d/ \( \frac{35}{36} \)
- e/ \( \frac{10}{9} \)

Exercise 2 (10 points)
Evaluate the integral \( \int_{0}^{\pi/2} \frac{\sin x + \sin x \tan^2 x}{\sec^2 x} \, dx \) (show all your steps)
**Exercise 1** (5 points)

Using three rectangles and right endpoints the area under the curve $y = x^2$ from 0 to 1 is approximately equal:

- a/ $\frac{10}{27}$
- b/ $\frac{35}{108}$
- c/ $\frac{14}{9}$
- d/ $\frac{14}{27}$
- e/ $\frac{35}{36}$

**Exercise 2** (10 points)

Evaluate the integral $\int_0^{\frac{\pi}{4}} \frac{\cos x + \cos x \cdot \cot^2 x}{\csc^2 x} dx$ (show all your steps)