

Name: _____

Clear your desk of everything excepts pens, pencils and erasers. If you have a question raise your hand and I will come to you.

1. (1 point) **Fill-in-the-Blank. No work needed. No partial credit available.** The indefinite integral

$$\int [x^2(\sqrt{x} - 7) + \sec^2(x)]dx$$

is _____.

2. (1 point) **Fill-in-the-Blank. No work needed. No partial credit available.** The definite integral

$$\int_2^3 [x^2(\sqrt{x} - 7) + \sec^2(x)]dx$$

is _____.

(You do not need to simplify your answer to the second question.)

Extra Work Space.

3. An object moves along a line with velocity $v(t) = \sqrt{t} - 1$, starting from a position 3 units to the right of the origin at time $t = 0$ s.
- (a) (1 point) What is the position of the object at time $t = 4$ s?
 - (b) (2 points) What is the total distance traveled by the object over the time interval $0 \leq t \leq 4$?