



## Unit 7 Review

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Use Integration by Parts to find the Integral

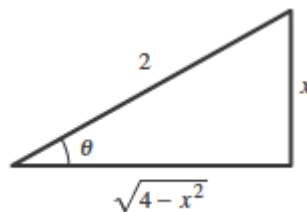
9.  $\int x e^{3x} dx$

13.  $\int x \sqrt{x-1} dx$

15.  $\int x^2 \sin 2x dx$

Use Trigonometric Substitution to find the integral Use the given triangle to complete the table and use it to evaluate the integral. Show your steps.

$$27. \int \frac{-12}{x^2 \sqrt{4-x^2}} dx$$



|                  |  |
|------------------|--|
| $\sin \theta =$  |  |
| $x =$            |  |
| $dx =$           |  |
| $\sqrt{4-x^2} =$ |  |

Use Partial Fractions to find the integral.

$$35. \int \frac{x-39}{x^2-x-12} dx$$

$$39. \int \frac{x^2}{x^2+5x-24} dx$$