

Answers only. Don't simplify or include a constant. **6** or more exactly right for full credit.

1. Compute  $\int \left( 4e^{6z} + \frac{3}{z^3} + \frac{5}{1+z^2} \right) dz$ .

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2. Compute  $\int_1^2 \left( \frac{3x^5 - 1}{x^2} \right) dx$ .

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3. Compute  $\int \frac{\cos(2\sqrt{y})}{\sqrt{y}} dy$ .

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4. Compute  $\int_0^3 (2+v)^3 dv$ .

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5. Compute  $\int 7 \arctan(8w) dw$ .

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6. Compute  $\int \frac{-2x + 3}{x^2 + 3x - 4} dx$ .

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7. Compute  $\int \frac{14z - 5}{z^2 + 4z + 20} dz$ .

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