Calculus - Basic Integration Test

1. (#1) $\int (x^3 - x + 5)\,dx$

    .

2. (#1,2) $\int \dfrac{x^2 - 4}{\sqrt[3]{x^2}}\,dx$

    .

3. (#1,5) $\int x\sqrt{x - 5}\,dx$

    .

4. (#3,4) $\int \csc 2x \cot 2x\,dx$

    .

5. (#2,4) $\int \dfrac{4}{(x + 4)^3}\,dx$

    .

6. (#3,4) $\int x \sin x^2\,dx$

.

7. (#1,2,5) $\displaystyle\int \frac{2x-1}{\sqrt{x+3}}\,dx$

.

8. (#1,4) $\displaystyle\int 5x\sqrt{1-x^2}\,dx$

.

9. (#1,3,4) $\displaystyle\int \tan^2 x \sec^2 x\,dx$

.

10. (#2,3) $\displaystyle\int \frac{\sin^2 x \cos x}{1-\cos^2 x}\,dx$

.

11. (#1,2,4,6) $\displaystyle\int_0^1 \frac{x}{(1+x^2)^2}\,dx$

.

12. (#1,2,6) $\displaystyle\int_{1}^{3}(2x^2 + \frac{1}{2x^2})\,dx$

.

13. #1: _____ of 8   #2: _____ of 6   #3: _____ of 4

    #4: _____ of 6   #5: _____ of 2   #6: _____ of 2

Skills for this unit test

#1: Basic integration of polynomials
#2: Rewrite and integral then evaluate
#3: Basic integration of trig functions
#4: Integrate using substitution (u=)
#5: Integrate using u=, x=
#6: Evaluate definite integrals

Calculus - Basic Integration Test
Answer Section

PROBLEM

1. ANS:
    .

    PTS: 1
2. ANS:
    .

    PTS: 1
3. ANS:
    .

    PTS: 1
4. ANS:
    .

    PTS: 1
5. ANS:
    .

    PTS: 1
6. ANS:
    .

    PTS: 1
7. ANS:
    .

    PTS: 1
8. ANS:
    .

    PTS: 1
9. ANS:
    .

    PTS: 1
10. ANS:
    .

    PTS: 1
11. ANS:
    .

PTS: 1
12. ANS:
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PTS: 1
13. ANS:
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PTS: 1