1.[http://latex.codecogs.com/gif.latex?%5Cint%20x%5Cleft%20%28%20x%5E%7B2%7D+8%20%5Cright%20%29%5E%7B19%7Ddx%20=%20...](http://www.codecogs.com/eqnedit.php?latex=%5Cint%20x%5Cleft%20%28%20x%5E%7B2%7D@plus;8%20%5Cright%20%29%5E%7B19%7Ddx%20=%20...)  
  
**Jawab :**  
Misal y = x2 + 8  
maka  
[http://latex.codecogs.com/gif.latex?%5Cfrac%7Bdy%7D%7Bdx%7D=2x](http://www.codecogs.com/eqnedit.php?latex=%5Cfrac%7Bdy%7D%7Bdx%7D=2x)  
Sehingga  
[http://latex.codecogs.com/gif.latex?dx=%5Cfrac%7Bdy%7D%7B2x%7D](http://www.codecogs.com/eqnedit.php?latex=dx=%5Cfrac%7Bdy%7D%7B2x%7D)  
  
Maka  
[http://latex.codecogs.com/gif.latex?%5Cint%20x%5Cleft%20%28%20x%5E%7B2%7D+8%20%5Cright%20%29%5E%7B19%7Ddx%20=%20%5Cint%20xy%5E%7B19%7D%5Cfrac%7Bdy%7D%7B2x%7D=%5Cfrac%7B1%7D%7B2%7D%5Cint%20y%5E%7B19%7Ddy](http://www.codecogs.com/eqnedit.php?latex=%5Cint%20x%5Cleft%20%28%20x%5E%7B2%7D@plus;8%20%5Cright%20%29%5E%7B19%7Ddx%20=%20%5Cint%20xy%5E%7B19%7D%5Cfrac%7Bdy%7D%7B2x%7D=%5Cfrac%7B1%7D%7B2%7D%5Cint%20y%5E%7B19%7Ddy)  
[http://latex.codecogs.com/gif.latex?=%20%5Cfrac%7B1%7D%7B2%7D.%5Cfrac%7B1%7D%7B20%7Dy%5E%7B20%7D%20+%20c%20=%20%5Cfrac%7B1%7D%7B40%7D%5Cleft%20%28%20x%5E%7B2%7D%20+%208%20%5Cright%20%29%5E%7B20%7D%20+%20c](http://www.codecogs.com/eqnedit.php?latex==%20%5Cfrac%7B1%7D%7B2%7D.%5Cfrac%7B1%7D%7B20%7Dy%5E%7B20%7D%20@plus;%20c%20=%20%5Cfrac%7B1%7D%7B40%7D%5Cleft%20%28%20x%5E%7B2%7D%20@plus;%208%20%5Cright%20%29%5E%7B20%7D%20@plus;%20c)

2.

|  |  |
| --- | --- |
| Nilai | http://matematikastudycenter.com/images/11-sma-limit-fungsi-aljabar-no-3a.png |

A. −1/4  
B. −1/2  
C. 1  
D. 2  
E. 4   
  
  
**Pembahasan**  
Ubah bentuk akarnya ke bentuk pangkat agar lebih mudah diturunkan seperti ini  
http://matematikastudycenter.com/images/11-sma-limit-fungsi-aljabar-no-3b.png   
  
Turunkan atas - bawah, kemudian masukkan angka 3 nya   
  
http://matematikastudycenter.com/images/11-sma-limit-fungsi-aljabar-no-3c.png