

## Potenser

1 Skriv uttrycken på ett kortare sätt.

a)  $2 \cdot 2 \cdot 2 \cdot 2 =$  \_\_\_\_\_ b)  $4 \cdot 4 \cdot 4 =$  \_\_\_\_\_

c)  $5 + 5 + 5 =$  \_\_\_\_\_ d)  $x \cdot x \cdot x =$  \_\_\_\_\_

e)  $3 \cdot 3 =$  \_\_\_\_\_ f)  $1 \cdot 1 \cdot 1 \cdot 1 \cdot 1 =$  \_\_\_\_\_

2 En potens har basen 7 och exponenten 2.

a) Teckna potensen. \_\_\_\_\_

b) Beräkna potensens värde. \_\_\_\_\_

3 a)  $5^2 = 5 \cdot 5 =$  \_\_\_\_\_

b)  $7^2 =$  \_\_\_\_\_ = \_\_\_\_\_

c)  $10^3 =$  \_\_\_\_\_ = \_\_\_\_\_

d)  $3^3 =$  \_\_\_\_\_ = \_\_\_\_\_

e)  $2^4 =$  \_\_\_\_\_ = \_\_\_\_\_

f)  $1^9 =$  \_\_\_\_\_ = \_\_\_\_\_

4 a)  $5^2 - 2^2 = 5 \cdot 5 - 2 \cdot 2 =$  \_\_\_\_\_ = \_\_\_\_\_

b)  $3^2 + 10^2 =$  \_\_\_\_\_ = \_\_\_\_\_ = \_\_\_\_\_

c)  $10^1 + 10^2 =$  \_\_\_\_\_ = \_\_\_\_\_ = \_\_\_\_\_

d)  $3^3 - 2^2 =$  \_\_\_\_\_ = \_\_\_\_\_ = \_\_\_\_\_

e)  $2^1 + 2^2 + 2^3 =$  \_\_\_\_\_ = \_\_\_\_\_ = \_\_\_\_\_

f)  $10^2 - 9^2 =$  \_\_\_\_\_ = \_\_\_\_\_ = \_\_\_\_\_

5 a)  $0,5^2 =$  \_\_\_\_\_ = \_\_\_\_\_

b)  $0,2^2 =$  \_\_\_\_\_ = \_\_\_\_\_

c)  $0,1^3 =$  \_\_\_\_\_ = \_\_\_\_\_

d)  $0,2^3 =$  \_\_\_\_\_ = \_\_\_\_\_

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**FACIT**

- 1 a)  $2^4$   
b)  $4^3$   
c)  $3 \cdot 5$   
d)  $x^3$   
e)  $3^2$   
f)  $1^5$
- 2 a)  $7^2$   
b) 49
- 3 a) 25  
b) 49  
c) 1 000  
d) 27  
e) 16  
f) 1
- 4 a) 21  
b) 109  
c) 110  
d) 23  
e) 14  
f) 19
- 5 a) 0,25  
b) 0,04  
c) 0,001  
d) 0,008