

Stack

Call Method with
Value Types Arguments


```

static int Main()
{
    int a = 5, y = 3, result;
    result = pow(a, y);
}

static int pow(int a, int b)
{
    int res = 1;
    for(int i=0; i<b; i++)
    {
        res *= a;
    }

    return res;
}

```

| Address | Name | Stack |
|---------|--------|-------|
| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| | | |
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| \$FFFF | a | 5 |
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| <hr/> | | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| | | |
| | | |
| | | |
| | | |
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```

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| \$FFFB | y | 3 |
| \$FFF7 | result | |
| <hr/> | | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| | | |
| | | |
| | | |
| | | |



```

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{
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| Address | Name | Stack |
|---------|----------------|--------|
| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 1 |
| | | |
| | | |
| | | |



```

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{
    int a = 5, y = 3, result;
    result = pow(a, y);
}

static int pow(int a, int b)
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| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 1 |
| \$FFE3 | i | 0 |
| | | |
| | | |




```

static int Main()
{
    int a = 5, y = 3, result;
    result = pow(a, y);
}

static int pow(int a, int b)
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| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 1 |
| \$FFE3 | i | 0 |
| | | |
| | | |

```

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{
    int a = 5, y = 3, result;
    result = pow(a, y);
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static int pow(int a, int b)
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| <hr/> | | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 1 |
| \$FFE3 | i | 0 |
| | | |
| | | |



```

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{
    int a = 5, y = 3, result;
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| Address | Name | Stack |
|---------|----------------|--------|
| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 1 |
| \$FFE3 | i | 0 |
| | | |
| | | |

```

static int Main()
{
    int a = 5, y = 3, result;
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| Address | Name | Stack |
|---------|----------------|--------|
| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 5 |
| \$FFE3 | i | 0 |
| | | |
| | | |



```

static int Main()
{
    int a = 5, y = 3, result;
    result = pow(a, y);
}

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| Address | Name | Stack |
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| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 5 |
| \$FFE3 | i | 0 |
| | | |
| | | |

```

static int Main()
{
    int a = 5, y = 3, result;
    result = pow(a, y);
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| Address | Name | Stack |
|---------|----------------|--------|
| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 5 |
| \$FFE3 | i | 1 |
| | | |
| | | |



```

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{
    int a = 5, y = 3, result;
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| Address | Name | Stack |
|---------|----------------|--------|
| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| <hr/> | | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 5 |
| \$FFE3 | i | 1 |
| | | |
| | | |

```

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{
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| Address | Name | Stack |
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| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| <hr/> | | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 5 |
| \$FFE3 | i | 1 |
| | | |
| | | |


```

static int Main()
{
    int a = 5, y = 3, result;
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| Address | Name | Stack |
|---------|----------------|--------|
| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 5 |
| \$FFE3 | i | 1 |
| | | |
| | | |



```

static int Main()
{
    int a = 5, y = 3, result;
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```

| Address | Name | Stack |
|---------|----------------|--------|
| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 25 |
| \$FFE3 | i | 1 |
| | | |
| | | |

```

static int Main()
{
    int a = 5, y = 3, result;
    result = pow(a, y);
}

static int pow(int a, int b)
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```

| Address | Name | Stack |
|---------|----------------|--------|
| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 25 |
| \$FFE3 | i | 1 |
| | | |
| | | |

```

static int Main()
{
    int a = 5, y = 3, result;
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| Address | Name | Stack |
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| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 25 |
| \$FFE3 | i | 2 |
| | | |
| | | |



```

static int Main()
{
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| Address | Name | Stack |
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| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 25 |
| \$FFE3 | i | 2 |
| | | |
| | | |



```

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| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 25 |
| \$FFE3 | i | 2 |
| | | |
| | | |



```

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| \$FFE3 | i | 2 |
| | | |
| | | |

```

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| Address | Name | Stack |
|---------|----------------|--------|
| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 125 |
| \$FFE3 | i | 2 |
| | | |
| | | |


```

static int Main()
{
    int a = 5, y = 3, result;
    result = pow(a, y);
}

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| \$FFFF | a | 5 |
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| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 125 |
| \$FFE3 | i | 2 |
| | | |
| | | |

```

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| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 125 |
| \$FFE3 | i | 3 |
| | | |
| | | |



```

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| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 125 |
| \$FFE3 | i | 3 |
| | | |
| | | |

```

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| \$FFFF | a | 5 |
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| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 125 |
| \$FFE3 | i | 3 |
| | | |
| | | |

```

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| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 125 |
| \$FFE3 | i | 3 |
| | | |
| | | |

```

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| \$FFFB | y | 3 |
| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 125 |
| \$FFE3 | i | 3 |
| | | |
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static int Main()
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| \$FFFB | y | 3 |
| \$FFF7 | result | |
| <hr/> | | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 125 |
| \$FFE3 | i | 3 |
| | | |
| | | |

```

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{
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| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 125 |
| \$FFE3 | i | 3 |
| | | |
| | | |


```
static int Main()
{
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| \$FFF7 | result | |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 125 |
| \$FFE3 | i | 3 |
| | | |
| | | |

```

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| Address | Name | Stack |
|---------|----------------|--------|
| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | 125 |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 125 |
| \$FFE3 | i | 3 |
| | | |
| | | |

```

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{
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| Address | Name | Stack |
|---------|----------------|--------|
| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | 125 |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 125 |
| \$FFE3 | i | 3 |
| | | |
| | | |

```

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| Address | Name | Stack |
|---------|----------------|--------|
| \$FFFF | a | 5 |
| \$FFFB | y | 3 |
| \$FFF7 | result | 125 |
| \$FFF3 | a | 5 |
| \$FFEF | b | 3 |
| \$FFEB | Return address | \$FFF7 |
| \$FFE7 | res | 125 |
| \$FFE3 | i | 3 |
| | | |
| | | |

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static int Main()
{
    int a = 5, y = 3, result;
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```

```
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| | | |
| | | |
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