

13. [Order of Operations]

Skill 13.1 Using 'order of operations' involving + and/or -

MM5 1 1 2 2 3 3 4 4
MM6 1 1 2 2 3 3 4 4

- Add (+) and/or subtract (-) from left to right.

Q. $8 - 2 - 5 + 6 =$

A. $8 - 2 - 5 + 6 =$
 $= 6 - 5 + 6$
 $= 1 + 6$
 $= 7$

Start with 8 and subtract 2.
The result is 6.
Then subtract 5 from 6.
The result is 1.
Finally add 6 to the 1.

a) $8 + 2 + 4 =$

$10 + 4 =$

b) $6 + 5 - 3 =$

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c) $14 - 7 - 6 =$

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d) $7 - 5 + 9 =$

.....

e) $19 - 8 + 1 =$

.....

f) $16 - 2 + 5 =$

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g) $4 + 6 + 3 =$

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h) $13 - 7 - 4 =$

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i) $5 + 8 - 9 =$

.....

j) $6 + 5 + 1 - 2 =$

$11 + 1 - 2 =$

$12 - 2 =$

k) $8 - 4 + 3 + 2 =$

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l) $9 + 7 - 5 - 1 =$

.....

m) $7 + 3 + 5 - 6 =$

.....

n) $5 - 2 + 7 - 5 =$

.....

o) $9 - 3 - 2 - 1 =$

.....

p) $5 + 8 - 4 - 3 =$

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q) $9 - 4 + 7 + 2 =$

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r) $8 + 6 - 9 + 5 =$

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- Multiply (\times) and/or divide (\div) from left to right.

Q. $12 \div 3 \times 5 =$

A. $12 \div 3 \times 5 =$
 $= 4 \times 5$
 $= 20$

Start with 12 and divide by 3.
The result is 4.
Then multiply 4 by 5.

a) $2 \times 5 \times 3 =$

$10 \times 3 =$

b) $5 \times 3 \div 3 =$

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c) $16 \div 4 \div 2 =$

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d) $12 \div 3 \times 4 =$

.....

e) $2 \times 1 \times 3 =$

.....

f) $14 \div 7 \times 4 =$

.....

g) $5 \times 4 \div 4 =$

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h) $18 \div 6 \div 3 =$

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i) $7 \times 2 \div 7 =$

.....

j) $4 \times 2 \times 2 =$

$8 \times 2 =$

k) $2 \times 9 \div 6 =$

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l) $20 \div 5 \div 2 =$

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m) $15 \div 5 \times 6 =$

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n) $3 \times 4 \times 5 =$

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o) $24 \div 4 \times 2 =$

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p) $3 \times 4 \div 3 =$

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q) $28 \div 7 \div 2 =$

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r) $4 \times 6 \div 3 =$

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Skill 13.3 Using 'order of operations' involving single \times or \div and $+$ or $-$

MM5 11 22 33 44
MM6 11 22 33 44

- Multiply (\times) and/or divide (\div) from left to right.
- Add ($+$) and/or subtract ($-$) from left to right.

Q. $6 + 12 \div 3 =$

A. $6 + 12 \div 3 =$
 $= 6 + 4$
 $= 10$

First do 12 divided by 3.
The result is 4.
Then add 6 and 4.

a) $21 \div 3 - 2 =$

$7 - 2 =$

b) $4 + 3 \times 3 =$

$\dots\dots\dots$

c) $6 \times 2 + 8 =$

$\dots\dots\dots$

d) $15 \div 5 - 2 =$

$\dots\dots\dots$

e) $2 \times 5 - 4 =$

$\dots\dots\dots$

f) $6 + 3 \times 5 =$

$\dots\dots\dots$

g) $6 + 9 \div 3 =$

$\dots\dots\dots$

h) $18 \div 2 + 4 =$

$\dots\dots\dots$

i) $3 \times 4 + 7 =$

$\dots\dots\dots$

j) $13 - 3 \times 3 =$

$13 - 9 =$

k) $4 \times 4 - 7 =$

$\dots\dots\dots$

l) $15 - 10 \div 5 =$

$\dots\dots\dots$

m) $21 \div 7 - 1 =$

$\dots\dots\dots$

n) $8 + 12 \div 4 =$

$\dots\dots\dots$

o) $15 - 5 \times 2 =$

$\dots\dots\dots$

p) $18 - 12 \div 2 =$

$\dots\dots\dots$

q) $16 \div 4 + 4 =$

$\dots\dots\dots$

r) $18 \div 6 - 3 =$

$\dots\dots\dots$

- Simplify within the brackets.
- Multiply (\times) and/or divide (\div) from left to right.
- Add ($+$) and/or subtract ($-$) from left to right.

Q. $9 + 12 \div (9 - 5) =$

A. $9 + 12 \div (9 - 5) =$
 $= 9 + 12 \div 4$
 $= 9 + 3$
 $= 12$

Simplify inside the brackets and subtract 5 from 9. The result is 4. Then divide 12 by 4. The result is 3. Finally add 9 and 3.

a) $7 \times (4 - 2) =$

$7 \times 2 =$

14

b) $9 - (4 + 3) =$

.....

c) $(5 - 2) + 7 =$

.....

d) $8 + (3 \times 2) =$

.....

e) $(4 + 4) \times 3 =$

.....

f) $15 \div (5 - 2) =$

.....

g) $17 - (6 \times 2) =$

.....

h) $(18 \div 6) \div 3 =$

.....

i) $28 \div (2 \times 7) =$

.....

j) $8 + (5 + 1) \div 2 =$

$8 + 6 \div 2 =$

$8 + 3 =$

11

k) $4 + (2 \times 3) \times 2 =$

.....

.....

l) $15 \div 3 - (2 + 2) =$

.....

.....

m) $(9 + 7) - 4 \times 3 =$

.....

.....

n) $18 \div (9 - 3) + 2 =$

.....

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o) $9 + 3 \times (8 - 4) =$

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