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Order of Operations practice sheet.

Q1. Practice with the order. Remember to do these ONE STEP AT A TIME! You will need to REWRITE the changed question AFTER EACH STEP.

a) 3 + 2 x 4 =
b) 3 - 8 ÷ 4 =
c) 4 + 4 x 2 =
d) 9 - 3 x 1 =
e) 21 + 6 ÷ 3 =
f) 19 - 3 x 6 =
g) 11 + 3 x 2 =
h) 12 - 3 x 4 =
i) (2 + 4) x 1 =
j) (4 + 1) x 3 =
k) (4 - 2) x 3 =
l) 2 x (3 + 1) =
m) (5 + 5) ÷ 10 =
n) 16 ÷ (8 - 6) =
o) 45 ÷ (9 - 4) =
p) 11 x (3 + 1) =
q) 22 + 3 x 2 =
r) 4 - 1 x 3 =
s) 22 - 4 x 5 =
t) 6 x 5 + 2 =

Q2. Some longer ones, still basic but you'll need to be alert.

a) 2 x 3 + 2 x 4 =
b) 3 x 1 + 5 x 2 =
c) 2 + 4 x 2 - 1 =
d) 2 + 4 x 6 - 8
e) 17 - 5 x 3 + 5 =
f) 2 + 2 x 3 - 4 =
g) 12 - 4 x 2 + 3 =
h) 9 - 3 x 4 ÷ 2 =
i) 5 + 3 x 3 - 1 =
j) 4 x 2 - 3 x 1 =
k) 5 x 6 - 2 x 8 =
l) 2 + 3 x 9 - 1 =
m) 7 x 4 - 8 x 2 =
n) 12 - 2 x 6 + 5 =
o) 8 ÷ 4 + 2 x 4 =
p) 72 ÷ 9 + 1 x 4 =
q) 11 + 12 x 11 - 6 =
r) 12 - 24 ÷ 8 + 2 =
s) 63 ÷ 7 + 2 x 3 =
t) 45 ÷ 5 - 3 x 2 =

Q3. Within each bracket, you need to start again with the order of operations. Practice this and work with your neighbour to compare results.

a) (3 + 2 x 3) x 2 =
b) (2 x 3 + 4) x 5 =
c) (6 - 2 x 2) x 9 =
d) (4 + 2 x 3) ÷ 5 =
e) 12 ÷ (2 + 2 x 1) =
f) 7 x (3 + 48 ÷ 8) =
g) 3 x (9 + 2 x 2) =
h) (22 - 3 x 4) ÷ 2 =
i) (7 x 1 + 3) x 4 =
j) 33 ÷ (4 + 5 x 1 + 2) =
k) 15 x (3 + 1 x 1) =
l) 28 ÷ (13 - 2 x 3) =
m) (2 + 3) x 2 + (7 - 1) x 4 =
n) (5 - 3) x 6 + (20 - 2) ÷ 9 =

Q4. This rule follows for even the most complex sums. If there is a bracket, start again inside that bracket. If there is another bracket nested inside the first bracket, start again in that one and so on.

a) (3 x (2 + 2 x 3) + 1) ÷ 5 =
b) 4 x (2 + (3 x 5 - 7) x 2) =
c) ((4 + 2 x 6) ÷ 8) x 5 =
d) 2 + 3 x ((4 + 4 x 2) ÷ 6) =
e) 7 x ((4 - 2) x 2 + 1) =
f) 30 ÷ (((3 + 3) x 2 + 3) ÷ 5) =

SOLUTIONS:
Q1 a) 11 b) 1 c) 12 d) 6 e) 23 f) 1 g) 17 h) 0 i) 6 j) 15 k) 6 l) 8 m) 1 n) 8 o) 9 p) 44 q) 28 r) 1 s) 2 t) 32. **Q2** a) 14 b) 13 c) 9 d) 18 e) 10 f) 4 g) 7 h) 3 i) 13 j) 5 k) 14 l) 28 m) 12 n) 5 o) 10 p) 12 q) 137 r) 11 s) 15 t) 3 **Q3** a) 18 b) 50 c) 18 d) 2 e) 3 f) 63 g) 39 h) 5 i) 40 j) 3 k) 60 l) 4 m) 34 n) 14 **Q4** a) 5 b) 72 c) 10 d) 8 e) 35 f) 10