

Name _____

5-Step Order of Operations - Missing Factors Answer Key

Answer Key (step by step)

1) $(__ + 3) \times (6 - 2) + 12 \div 3 - 5 = 27$

$(6-2)=4 \rightarrow 12 \div 3=4 \rightarrow (+3) \times 4 + 4 - 5 = 27 \rightarrow (+3) \times 4 - 1 = 27 \rightarrow (__ + 3) \times 4 = 28 \rightarrow __ + 3 = 7 \rightarrow __ = 4$

2) $40 \div (__ + 2) + (3 \times 4) - 7 = 13$

$(3 \times 4) = 12 \rightarrow 40 \div (+2) + 12 - 7 = 13 \rightarrow 40 \div (+2) + 5 = 13 \rightarrow 40 \div (__ + 2) = 8 \rightarrow __ + 2 = 5 \rightarrow __ = 3$

3) $(20 - __) \div (8 - 4) + 6 \times 2 - 3 = 14$

$(8-4)=4 \rightarrow 6 \times 2 = 12 \rightarrow (20 - __) \div 4 + 12 - 3 = 14 \rightarrow (20 - __) \div 4 + 9 = 14 \rightarrow (20 - __) \div 4 = 5 \rightarrow 20 - __ = 20 \rightarrow __ = 0$

4) $5 \times (2 + __) + (18 \div 3) - 9 = 37$

$18 \div 3 = 6 \rightarrow 5 \times (2 + __) + 6 - 9 = 37 \rightarrow 5 \times (2 + __) - 3 = 37 \rightarrow 5 \times (2 + __) = 40 \rightarrow 2 + __ = 8 \rightarrow __ = 6$

5) $(15 - 6) \times (__ + 2) + 8 \div 2 - 4 = 45$

$15 - 6 = 9 \rightarrow 8 \div 2 = 4 \rightarrow 9 \times (+2) + 4 - 4 = 45 \rightarrow 9 \times (+2) = 45 \rightarrow __ + 2 = 5 \rightarrow __ = 3$

6) $24 \div (__ + 4) + (7 - 2) \times 3 - 6 = 12$

$(7-2)=5 \rightarrow 5 \times 3 = 15 \rightarrow 24 \div (+4) + 15 - 6 = 12 \rightarrow 24 \div (+4) + 9 = 12 \rightarrow 24 \div (__ + 4) = 3 \rightarrow __ + 4 = 8 \rightarrow __ = 4$