CAEC MATHEMATICS — PRACTICE WORKBOOK

Complete all guided step blanks and independent practice problems directly in the shaded fields.

Name: _____ **Date:** _____

TOPIC 1: ORDER OF OPERATIONS

Stage 1 — Foundations | Guided: Fill in the Blanks

Question 1

Evaluate: 3 + 4 × 4

Do the multiplication first: ☐ × 4 = ☐

Now add: ☐ + ☐

Final value: ☐

Final answer: ☐

Question 2

Evaluate: 4 + 5 × 4

Do the multiplication first: ☐ × 4 = ☐

Now add: ☐ + ☐

Final value: ☐

Final answer: ☐

Question 3

Evaluate: 5 + 6 × 4

Do the multiplication first: ☐ × 4 = ☐

Now add: ☐ + ☐

Final value: ☐

Final answer: ☐

Question 4

Evaluate: 6 + 7 × 4

Do the multiplication first: ☐ × 4 = ☐

Now add: ☐ + ☐

Final value: ☐

Final answer: ☐

Stage 1 — Foundations | Independent Practice

Question 5

Evaluate: 7 + 8 × 4

Final answer: ☐

Question 6

Evaluate: 8 + 9 × 4

Final answer: ☐

Question 7

Evaluate: 9 + 10 × 4

Final answer: ☐

Question 8

Evaluate: 10 + 11 × 4

Final answer: ☐

Stage 2 — Building Skills | Guided: Fill in the Blanks

Question 9

Evaluate: (3 + 5) × 3 − 1

Brackets first: ☐ + 5 = ☐

Multiply: ☐ × 3 = ☐

Subtract: ☐ − ☐ = ☐

Final answer: ☐

Question 10

Evaluate: (4 + 5) × 3 − 2

Brackets first: ☐ + 5 = ☐

Multiply: ☐ × 3 = ☐

Subtract: ☐ − ☐ = ☐

Final answer: ☐

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Question 11

Evaluate: (5 + 5) × 3 − 3

Brackets first: ☐ + 5 = ☐

Multiply: ☐ × 3 = ☐

Subtract: ☐ − ☐ = ☐

Final answer: ☐

Question 12

Evaluate: (6 + 5) × 3 − 4

Brackets first: ☐ + 5 = ☐

Multiply: ☐ × 3 = ☐

Subtract: ☐ − ☐ = ☐

Final answer: ☐

Stage 2 — Building Skills | Independent Practice

Question 13

Evaluate: (7 + 5) × 3 − 5

Final answer: ☐

Question 14

Evaluate: (8 + 5) × 3 − 6

Final answer: ☐

Question 15

Evaluate: (9 + 5) × 3 − 7

Final answer: ☐

Question 16

Evaluate: (10 + 5) × 3 − 8

Final answer: ☐

Stage 3 — Applying Skills | Guided: Fill in the Blanks

Question 17

Evaluate: 48 ÷ (2 + 3) + 2 × 3

Brackets: ☐ + 3 = ☐

Division & mult.: ☐ ÷ ☐ = ☐ ; 2 × ☐ = ☐

Add the results: ☐ + ☐ = ☐

Final answer: ☐

Question 18

Evaluate: 48 ÷ (3 + 3) + 2 × 4

Brackets: ☐ + 3 = ☐

Division & mult.: ☐ ÷ ☐ = ☐ ; 2 × ☐ = ☐

Add the results: ☐ + ☐ = ☐

Final answer: ☐

Question 19

Evaluate: 48 ÷ (4 + 3) + 2 × 5

Brackets: ☐ + 3 = ☐

Division & mult.: ☐ ÷ ☐ = ☐ ; 2 × ☐ = ☐

Add the results: ☐ + ☐ = ☐

Final answer: ☐

Question 20

Evaluate: 48 ÷ (5 + 3) + 2 × 6

Brackets: ☐ + 3 = ☐

Division & mult.: ☐ ÷ ☐ = ☐ ; 2 × ☐ = ☐

Add the results: ☐ + ☐ = ☐

Final answer: ☐

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Stage 3 — Applying Skills | Independent Practice

Question 21

Evaluate: 48 ÷ (6 + 3) + 2 × 7

Final answer: ☐

Question 22

Evaluate: 48 ÷ (7 + 3) + 2 × 8

Final answer: ☐

Question 23

Evaluate: 48 ÷ (8 + 3) + 2 × 9

Final answer: ☐

Question 24

Evaluate: 48 ÷ (9 + 3) + 2 × 10

Final answer: ☐

Stage 4 — Multi-Step Problems | Guided: Fill in the Blanks

Question 25

Evaluate: 72 − 6 × (3 − 4) ÷ 3

Brackets: ☐ − 4 = ☐

Multiply, then divide: 6 × ☐ ÷ 3 = ☐

Subtract: 72 − ☐ = ☐

Final answer: ☐

Question 26

Evaluate: 72 − 6 × (4 − 4) ÷ 3

Brackets: ☐ − 4 = ☐

Multiply, then divide: 6 × ☐ ÷ 3 = ☐

Subtract: 72 − ☐ = ☐

Final answer: ☐

Question 27

Evaluate: 72 − 6 × (5 − 4) ÷ 3

Brackets: ☐ − 4 = ☐

Multiply, then divide: 6 × ☐ ÷ 3 = ☐

Subtract: 72 − ☐ = ☐

Final answer: ☐

Question 28

Evaluate: 72 − 6 × (6 − 4) ÷ 3

Brackets: ☐ − 4 = ☐

Multiply, then divide: 6 × ☐ ÷ 3 = ☐

Subtract: 72 − ☐ = ☐

Final answer: ☐

Stage 4 — Multi-Step Problems | Independent Practice

Question 29

Evaluate: 72 − 6 × (7 − 4) ÷ 3

Final answer: ☐

Question 30

Evaluate: 72 − 6 × (8 − 4) ÷ 3

Final answer: ☐

Question 31

Evaluate: 72 − 6 × (9 − 4) ÷ 3

Final answer: ☐

Question 32

Evaluate: 72 − 6 × (10 − 4) ÷ 3

Final answer: ☐

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Stage 5 — CAEC-Style Challenges | Guided: Fill in the Blanks

Question 33

A student evaluates 5 + 3 × (8 − 2) as (5 + 3) × 6. Explain the error and give the correct value.

The operation inside brackets is ☐ = ☐

Next, multiply ☐ × 6 = ☐

Then add ☐ + ☐ = ☐

Final answer: ☐

Question 34

A student evaluates 6 + 3 × (8 − 2) as (6 + 3) × 6. Explain the error and give the correct value.

The operation inside brackets is ☐ = ☐

Next, multiply ☐ × 6 = ☐

Then add ☐ + ☐ = ☐

Final answer: ☐

Question 35

A student evaluates 7 + 3 × (8 − 2) as (7 + 3) × 6. Explain the error and give the correct value.

The operation inside brackets is ☐ = ☐

Next, multiply ☐ × 6 = ☐

Then add ☐ + ☐ = ☐

Final answer: ☐

Question 36

A student evaluates 8 + 3 × (8 − 2) as (8 + 3) × 6. Explain the error and give the correct value.

The operation inside brackets is ☐ = ☐

Next, multiply ☐ × 6 = ☐

Then add ☐ + ☐ = ☐

Final answer: ☐

Stage 5 — CAEC-Style Challenges | Independent Practice

Question 37

A student evaluates 9 + 3 × (8 − 2) as (9 + 3) × 6. Explain the error and give the correct value.

Final answer: ☐

Question 38

A student evaluates 10 + 3 × (8 − 2) as (10 + 3) × 6. Explain the error and give the correct value.

Final answer: ☐

Question 39

A student evaluates 11 + 3 × (8 − 2) as (11 + 3) × 6. Explain the error and give the correct value.

Final answer: ☐

Question 40

A student evaluates 12 + 3 × (8 − 2) as (12 + 3) × 6. Explain the error and give the correct value.

Final answer: ☐

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