Name:

Exam Style Questions

Order of Operations

Corbettmaths

Equipment needed: Pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Video Tutorial

www.corbettmaths.com/contents

Video 211

Answers and Video Solutions

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1. Calculate

(a) $16 - 5 \times 2$

16 - 10

6

6

.....

(1)

(b) $10 - 3^2$

10 - 9

1

1

.....

(1)

(c) $5 \times (2 + 3)$

5 x 5

25

25

.....

(1)

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2. Work out $40 \div 2 + 3$

20 + 3

23

23

.....

(1)

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3. Insert brackets to make this calculation correct.

(8 − 1) × 3 = 21

(1)

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4. Joey thinks the answer to $16 + 4 \times 2$ is 40

Albert thinks the answer to $16 + 4 \times 2$ is 24

Who is correct?
Explain your answer.

$16 + 4 \times 2$

$16 + 8 = 24$

Albert is correct as the multiplication needs to be carried out before addition.

(2)

5. Calculate

(a) $10 + 3 \times 2$

$10 + 6 = 16$

16

(1)

(b) $8 \div 2 + 12 \div 4$

$4 + 3 = 7$

7

(2)

(c) $3 \times 10 \div 5 - 1$

$30 \div 5 - 1$

$6 - 1 = 5$

5

(2)

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6. An estate agent is paid a weekly wage of £750 **plus** a bonus of £100 for each house sold.

Last week, the estate agent sold two houses.
Their pay is found by working out $750 + 100 \times 2$

Taniya thinks that the pay will be £1700

Explain why Taniya is wrong.

$750 + 100 \times 2$
$750 + 200 = 950$
£950

Taniya has added before multiplying. The multiplication needs to be carried out first.

(2)

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7. Calculate

(a) $6 + 6 \div 3$

$6 + 2$

8

(1)

(b) $8 + 3(5 - 1)$

$8 + 3 \times 4$
$8 + 12$

20

(2)

(c) $9 \times 2 + 20 \div 2$

$18 + 10$

28

(2)

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8. Put brackets in the following statements to make them true

(a) $6 \times 7 + 3 - 8 = 52$

(1)

(b) $4 + 3 \times 7 - 1 = 42$

(1)

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9. Work out

(a) $14 + 12 \div 2$

$14 + 6$

20

(1)

(b) $6 \times 4 - 7 \times 3$

$24 - 21$

3

(2)

---

10. Work out $3 + 9 \times (7 - 2)$

$3 + 9 \times 5$

$3 + 45$

48

(2)

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11. Work out

(a) $2^3 + 3^2$

$2^3 + 3^2$

$8 + 9$

$2^3 = 8$

$3^2 = 9$

17

(2)

(b) $2^2 \times 3^3$

4×27

108

(2)

12. Insert brackets to make this calculation correct.

$(7 + 9 - 4) \div 2 = 6$

(1)

13. Insert brackets to make the correct answer.

$5 + 4 \times (2 + 7) = 41$

(1)

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14. Work out

(a) $(2+5)^2$

7^2

49

(1)

(b) $5+3\times 6$

$5+18$

23

(1)

(c) $22-14\div 2$

$22-7$

15

(1)

(d) $(9+4)\times(100\div 25)$

13×4

52

(2)

(e) $7\times 5-10$

$35-10$

25

(1)

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15. Work out

(a) $4 \times (3 + 17)$

4×20

80

(1)

(b) $10 - 2 \times 5$

$10 - 10$

0

(1)

(c) $50 - 2^3 \times 4$

$50 - 8 \times 4$

$50 - 32$

18

(2)

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16. Work out $18.6 - 1.6 \times 5$

$18.6 - 8$

$1.6 \times 5 = 8.0$

10.6

(2)

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17. Work out $\sqrt{81} - (9 - 7) \times 3$

$\sqrt{81} - 2 \times 3$

$9 - 6$

3

.....

(3)

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18. Work out $\sqrt[3]{1000} - (11 - 3 \times 2)^2$

$\sqrt[3]{1000} - (11 - 6)^2$

$\sqrt[3]{1000} - 5^2$

$\sqrt[3]{1000} - 5^2$

$10 - 5^2$

$10 - 25$

-15

.....

(3)

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19. Work out $(513 \div 3) + (21 \times 13)$

171
3 | 5²13

21
×13
63
210
273

171 + 273

273
+171
444

444

(3)

20. Given

$a = 11 - 3^2$ $\quad b = \dfrac{60}{2+3}$ $\quad c = 18 - 3 \times 2 + 1$

Work out the value of $a + b + c$

a = 11 - 9
2

60/5 = 12

18 - 6 + 1
= 13

2 + 12 + 13

27

(4)

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