1.7 Negative Numbers: 1-hour Pack

Calculators not allowed · about 60 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A hill walker starts at 450 m above sea level. He goes down 520 m, then climbs 95 m, then goes down another 30 m. What is his final height above sea level?

(4)

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2 Work out -7 x 5 + 5 x (-8).

(3)

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3 Work out
(a) (-2) x 9
(b) -48 ÷ (-8)

(2)

---

4 Work out 5 x 5 + 4 x (-2).

(3)

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5 Work out
(a) 4 x 6
(b) 80 ÷ 8

(2)

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6 The temperature in Reykjavik was -14°C. It then fell by 7°C. Work out the new temperature.

(2)

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7 Work out -2 x 7 + 7 x (-3).

(3)

---

8 Work out (6 - (-3)) x 9.

(2)

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9 Work out -5 - (-7).

(1)

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10 Work out (-4 - (-2)) x 3.

(2)

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11 Work out 6 x 7 + 7 x (-4).

(3)

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12 Write these numbers in order, largest first.
11, 1, 3, -4, -1, 0

(2)

---

13 Work out 2 - (-1) + (-4).

(2)

---

14 Write these numbers in order, smallest first.
10, -1, 3, 0, 2, -3

(2)

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15 Calculate: -3 + 7

(1)

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16 The temperature in Ottawa was -9°C. It then fell by 7°C. Work out the new temperature.

(2)

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17 Find the missing number: -6 + ? = -12

(2)

---

18 Work out

(a) 4 x (-4)

(b) 32 ÷ 4

(2)

---

19 Calculate: 5 - 12

(1)

---

20 A company's share price starts at 240p. It falls by 65p, then rises by 28p. What is the new share price? Show your working.

(3)

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21 Work out: (-3) x (-6) + (-4)

(2)

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Mark scheme · 1.7 Negative Numbers: 1-hour Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

first move: 450 - 520 = -70 or equivalent	M1
second move: -70 + 95 = 25 or equivalent	M1
third move: 25 - 30 = -5 or equivalent	M1
-5 m cao	A1

Answer: **-5 m**

Question 2

-7 x 5 = -35 evaluated	M1
5 x (-8) = -40 evaluated	M1
-75 cao	A1

Answer: **-75**

Question 3

(a) -18	B1
(b) 6	B1

Answer: **(a) -18, (b) 6**

Question 4

5 x 5 = 25 evaluated	M1
4 x (-2) = -8 evaluated	M1
17 cao	A1

Answer: **17**

Question 5

(a) 24	B1
(b) 10	B1

Answer: **(a) 24, (b) 10**

Question 6

-14 - 7 seen	M1
-21°C cao	A1

Answer: **-21°C**

Question 7

-2 x 7 = -14 evaluated	M1
7 x (-3) = -21 evaluated	M1
-35 cao	A1

Answer: **-35**

Question 8

6 - (-3) = 9	M1
81 cao	A1

Answer: **81**

Question 9

2 cao	B1

Answer: **2**

Question 10

-4 - (-2) = -2	M1
-6 cao	A1

Answer: **-6**

Question 11

6 x 7 = 42 evaluated	M1
7 x (-4) = -28 evaluated	M1
14 cao	A1

Answer: **14**

Question 12

at least four numbers in the correct relative order	M1
11, 3, 1, 0, -1, -4 cao	A1

Answer: **11, 3, 1, 0, -1, -4**

Question 13

2 - (-1) evaluated correctly (3) or equivalent	M1
-1 cao	A1

Answer: **-1**

Question 14

at least four numbers in the correct relative order	M1
-3, -1, 0, 2, 3, 10 cao	A1

Answer: **-3, -1, 0, 2, 3, 10**

Question 15

4 cao	B1

Answer: **4**

Question 16

-9 - 7 seen	M1
-16°C cao	A1

Answer: **-16°C**

Question 17

uses the inverse operation or tries a value and checks	M1
-6 cao	A1

Answer: **-6**

Question 18

(a) -16	B1
(b) 8	B1

Answer: **(a) -16, (b) 8**

Question 19

-7 cao	B1

Answer: **-7**

Question 20

correct first step, 240 - 65 = 175	M1
correct second step, 175 + 28	M1
203p cao	A1

Answer: **203p**

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Question 21

correctly evaluates (-3) x (-6) = 18	**M1**
14 cao	**A1**

Answer: **14**

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