Section 1.1a – Practice Problems

EMERGING LEVEL QUESTIONS

Execute the following operations by displaying diagrams of the situation, what do you start with?

1. $3 + (-2)$ +++ adding -- + and - cancel left with [+]

2. $(-5) + (-7)$

----- adding ------- more negatives [-12]

3. $3 - (-5)$

+++ need negatives bring +++++ } this is 0
-----

4. $12 - 7$

5. $-7 - 4$

Add the following Integers without a calculator

6. $4 + 7$

[11]

7. $4 + (-7)$

[-3]

8. $(-4) + (-7)$

[-11]

9. $-4 + 7$

[3]

10. $4 + 3 + 6$

[13]

11. $4 + (-3) + 6$

[7]

PROFICIENT LEVEL QUESTIONS

12. $10 + 5 + (-12)$

3

13. $4 + (-5) + 12$

11

14. $-4 + (-5) + 7$

-2

15. $-7 + 3 + (-5)$

-9

Subtract the following Integers without a calculator

EMERGING LEVEL QUESTIONS

16. $18 - 5$

13

17. $-18 - 7$

-25

18. $-4 - (-7)$

3

19. $4 - 7$

-3

PROFICIENT LEVEL QUESTIONS

20. $-13 - 8 - (-4)$

-17

21. $-15 - 6 - 3$

-24

22. $-7 - (-4) - (-6)$

3

23. $-12 - (-15) - 4$

-1

24. $14 - (-5) - 9$

10

25. $21 - (-7) - 10$

18

EXTENDING LEVEL QUESTIONS

Add and Subtract the following decimal integers without a calculator

26. $-4.06 + 1.83$

4.06
-1.83
2.23

-2.23

27. $-5.637 + (-3.71)$

'5.637
+3.71
9.347

-9.347

28. $4.06 - 1.83$

3 14
4.06
-1.83
2.23

2.23

29. $-5.637 - (-3.711)$

5.637
-3.711
1.926

-1.926

30. $7.204 - (-1.8)$

'7.204
+1.8
9.004

9.004

31. $-7.204 + (-1.8)$

'7.204
+1.8
9.004

-9.004

EMERGING LEVEL QUESTIONS

Multiply and Divide the following integers without a calculator

32. $-4 \cdot 7$

-28

33. $-4 \cdot (-7)$

28

34. $2 \cdot (-9)$

-18

35. $-4 \cdot 7$

-28

36. $4 \cdot 3 \cdot 6$

72

37. $4 \cdot (-3) \cdot 6$

-72

38. $10 \cdot 5 \cdot (-12)$

-600

39. $4 \cdot (-5) \cdot 12$

-240

40. $-40 \div (-5)$

8

41. $-72 \div 3$

-24

PROFICIENT LEVEL QUESTIONS

42. $-112 \div 2$

-56

43. $-200 \div 5$

-40

44. $-70 \div 2 \cdot (-1)$

35

45. $28 \div (-4) \cdot (-3)$

21

46. $-56 \div (-8) \cdot (-6)$

-42

47. $720 \div -3 \cdot (-3)$

720

EXTENDING LEVEL QUESTIONS

Transform the written statements into a numerical statement and solve it.

48. My mother gave me $25 dollars to buy food. I decide to order on Uber Eats and the meal cost me $13, the delivery cost me $4, and I tipped the driver $2. How much money do I have left. Was this a good use of my money?

$13 + 4 + 2 = \$19$

$\$25 - \$19 = \boxed{\$6}$

49. My bank account is in overdraft $42. I get charged an additional $5 fee, and then pay back $30. How much do I still owe?

$42 + 5 = 47$

$47 - 30 = 17$

$\boxed{\$17}$

50. In Victoria today is $7°C$ and in Edmonton is $15°C$ below zero. What is the difference in the temperature between the two cities.

$7 - (-15) = \boxed{22°C}$

51. The phone I want to buy costs $1200 outright, I have $856 saved up, how much am I short?

$856 - 1200 = \boxed{\$-344}$

52. I am in debt $4200 but I have amazing friends. Three of them said they would split the debt with me, how much do we owe each?

$-4200 \div 4 = \boxed{-1050}$

53. My office has arranged a Holiday party, there are a number of fees to pay though. The booking of the restaurant costs $600, the transportation costs $475, and the food costs $2500. We have $575 in the staff account to offset the cost. If 300 people are coming, how much do they each owe?

$600 + 475 + 2500 - 575 \div 300$

$= \boxed{\$10}$

54. My family trip cost us $6548. Each member of the family (5 of us) has $1310 to contribute to the bill. Do we have enough money to pay back the entire cost? By how much are we short or over?

5 · 1310 = 6550

6550 − 6548 = $2

yes, by $2

55. 15 people all contribute $575 over the course of 5 months to a savings fund.

I) How much do they each contribute per month?

575 ÷ 5 = $115

II) How much is there in the fund at the end of the 5 months?

15 · 575 = $8625

III) If they need $9000 in the fund at the end of the 5 months, how much are they over or short?

9000 − 8625 = 375

Short $375

IV) How much would each person need to contribute monthly to make the goal of $9000?

9000 ÷ 15 = 600

600 ÷ 5 = $120 each