

Integer Operations Review

Name: _____

For each problem you must add, subtract, multiply and divide the integers. No calculators and all answers must be written in simplest form, no improper fractions!

1. -9, -9

$+$ $(-9) + (-9)$ $\boxed{-18}$	$-$ $-9 - (-9)$ $\boxed{0}$
$*$ $(-9)(-9)$ $\boxed{81}$	\div $\frac{-9}{-9}$ $\boxed{1}$

2. 8, -2

$+$ $8 + (-2)$ $\boxed{6}$	$-$ $8 - (-2)$ $\boxed{10}$
$*$ $(8)(-2)$ $\boxed{-16}$	\div $\frac{8}{-2}$ $\boxed{-4}$

3. 40, -20

$+$ $40 + (-20)$ $\boxed{20}$	$-$ $40 - (-20)$ $\boxed{60}$
$*$ $(40)(-20)$ $\boxed{-800}$	\div $\frac{40}{-20}$ $\boxed{-2}$

4. -5, 3

$+$ $-5 + 3$ $\boxed{-2}$	$-$ $-5 - 3$ $\boxed{-8}$
$*$ $(-5)(3)$ $\boxed{-15}$	\div $\frac{-5}{3}$ $\boxed{-5/3}$

5. -16, -4

$+$ $-16 + (-4)$ $\boxed{-20}$	$-$ $-16 - (-4)$ $\boxed{-12}$
$*$ $(-16)(-4)$ $\boxed{64}$	\div $\frac{-16}{-4}$ $\boxed{4}$

6. -35, 70

$+$ $-35 + 70$ $\boxed{35}$	$-$ $-35 - 70$ $\boxed{-105}$
$*$ $(-35)(70)$ $\boxed{-2450}$	\div $\frac{-35}{70}$ $\boxed{-1/2}$

7. 32, -8

$+$ $32 + (-8)$ $\boxed{24}$	$-$ $32 - (-8)$ $\boxed{40}$
$*$ $(32)(-8)$ $\boxed{-256}$	\div $\frac{32}{-8}$ $\boxed{-4}$

8. 100, -60

$+$ $100 + (-60)$ $\boxed{40}$	$-$ $100 - (-60)$ $\boxed{160}$
$*$ $(100)(-60)$ $\boxed{-6000}$	\div $\frac{100}{-60}$ $\boxed{-5/3}$

Name: _____

Date: _____

Review of all Operations on Integers

1. $5 + (-65) = -60$

2. $-23 + 8 = -15$

3. $-20 - 30 = -50$
 $-20 + (-30)$

4. $-2 \cdot (-18) = 36$

5. $-8 \div (-8) = 1$

6. $5 \cdot (-8) = -40$

7. $-12 - (-4) = -8$

8. $16(-1) = -16$

9. $-7 + (-14) = -21$

10. $42 + 16 = 58$

11. $-99 - 1 = -100$

12. $-99 + (-1) = -100$

13. $-88 - (-5) = -83$

14. $-32 \div 8 = -4$

15. $0 + (-62) = -62$

16. $0 - (-62) = 62$

17. $8 - 12 = -4$

18. $-10(2) = -20$

19. $5(-2)(-1) = 10$
 $(-10)(-1)$

20. $-10 - 2 = -12$

21. $16 - 30 = -14$

22. $0 - 112 = -112$

23. $-60 \div 12 = -5$

24. $19 \cdot 2 = 38$

25. $13 + (-11) = 2$

26. $-7 - (-2) = -5$

27. $7 - (-2) = 9$

28. $-4 + 5 = 1$

29. $-10 + 16 - 8 = -2$
 $6 - 8$

30. $0 - 9 - 9 = -18$

31. $8(-12) = -96$

32. $8 - (-12) = 20$

33. $-1 + 100 - 99 = 0$
 $99 - 99$

34. $14 - 4 = 10$

35. $-40 \div (-5) = 8$

36. $4 - 14 = -10$

37. $21 \cdot (-3) =$

38. $120 + (-10) = 110$

39. $0 - 6 + (-1) = -7$
 $-6 + (-1)$

Write and solve a problem for each of the following:

40. What is the sum of -16 and -48? $-16 + (-48) = -64$

41. What is the product of 9 and -100? $(9)(-100) = -900$

42. What is the quotient of 14 divided by -7? $14 \div (-7) = -2$

43. What is the difference between 17 and -6? $17 - (-6) = 23$

44. What is the quotient of 7 divided by 14? $7 \div 14 = 1/2$

Name _____

Period _____

Review All Four Operations

Solve each of the following and reduce your answers to lowest terms.

$$1. \left(\frac{4}{4}\right) \frac{2}{5} + \frac{7}{20} =$$

$$\frac{8}{20} + \frac{7}{20}$$

$$\frac{15}{20} = \boxed{\frac{3}{4}}$$

$$3. \left(\frac{4}{4}\right) \frac{2}{3} + \frac{3}{4} \left(\frac{2}{3}\right)$$

$$\frac{8}{12} + \frac{9}{12}$$

$$\boxed{\frac{17}{12}}$$

Adding Fractions
and
Subtracting Fractions
Common Denom

$$2. \frac{1}{8} + \frac{1}{2} \left(\frac{4}{4}\right)$$

$$\frac{1}{8} + \frac{4}{8} = \boxed{\frac{5}{8}}$$

$$4. \left(\frac{3}{3}\right) \frac{3}{4} + \frac{5}{6} \left(\frac{2}{2}\right)$$

$$\frac{9}{12} + \frac{10}{12} = \boxed{\frac{19}{12}}$$

$$5. 5\frac{1}{2} + 6\frac{1}{3} =$$

$$\left(\frac{3}{3}\right) \frac{11}{2} + \frac{19}{3} \left(\frac{2}{2}\right)$$

$$\frac{33}{6} + \frac{38}{6} = \boxed{\frac{71}{6}}$$

Mixed
→
Improper

$$6. 6\frac{2}{5} - 3\frac{1}{2} =$$

$$\left(\frac{2}{2}\right) \frac{32}{5} - \frac{7}{2} \left(\frac{5}{5}\right)$$

$$\frac{64}{10} - \frac{35}{10} = \boxed{\frac{29}{10}}$$

$$7. 10\frac{7}{12} - 6 =$$

$$\frac{127}{12} - \frac{6}{1} \left(\frac{12}{12}\right)$$

$$\frac{127}{12} - \frac{72}{12} = \boxed{\frac{55}{12}}$$

$$8. 8 - 6\frac{1}{5} =$$

$$\left(\frac{5}{5}\right) \frac{8}{1} - \frac{31}{5}$$

$$\frac{40}{5} - \frac{31}{5} = \boxed{\frac{9}{5}}$$

$$9. 7\frac{5}{6} - 1\frac{3}{4} =$$

$$\left(\frac{2}{2}\right) \frac{47}{6} - \frac{7}{4} \left(\frac{3}{3}\right)$$

$$\frac{94}{12} - \frac{21}{12} = \boxed{\frac{73}{12}}$$

Multiply
Straight
Across

$$10. 7\frac{1}{2} - 3\frac{3}{4} =$$

$$\left(\frac{2}{2}\right) \frac{15}{2} - \frac{15}{4}$$

$$\frac{30}{4} - \frac{15}{4} = \boxed{\frac{15}{4}}$$

$$11. \left(\frac{1}{3}\right) \left(\frac{3}{4}\right) =$$

$$\frac{3}{12}$$

$$\boxed{\frac{1}{4}}$$

$$12. \left(\frac{1}{2}\right) \left(-1\frac{1}{2}\right) =$$

$$\left(\frac{1}{2}\right) \left(-\frac{3}{2}\right)$$

$$\boxed{-\frac{3}{4}}$$

$$13. \left(-1\frac{1}{4}\right)\left(-2\frac{6}{15}\right) =$$

$$\left(-\frac{5}{4}\right)\left(-\frac{36}{15}\right) = \boxed{3}$$

$$-\frac{180}{60}$$

$$14. \left(8\frac{1}{6}\right)\left(1\frac{5}{7}\right) =$$

$$\left(\frac{49}{6}\right)\left(\frac{12}{7}\right) = \boxed{\frac{147}{7}}$$

$$\frac{588}{42} = \frac{294}{14} = \frac{147}{7}$$

$$15. \frac{1}{3} \div \frac{2}{5} =$$

$$\frac{1}{3} \cdot \frac{5}{2} = \boxed{\frac{5}{6}}$$

Mix → Improper

$$16. \frac{8}{9} \div \frac{3}{1} =$$

$$\frac{8}{9} \cdot \frac{1}{3} = \boxed{\frac{8}{27}}$$

$$17. \left(-\frac{9}{10}\right) \div \left(-\frac{3}{4}\right) =$$

$$\left(-\frac{9}{10}\right) \cdot \left(-\frac{4}{3}\right) = \boxed{\frac{6}{5}}$$

KFC

$$18. 12 \div \left(-2\frac{1}{4}\right) =$$

$$12 \div \left(-\frac{9}{4}\right) = \boxed{-\frac{16}{3}}$$

$$\frac{12}{1} \cdot -\frac{4}{9} = -\frac{48}{9}$$

$$19. 10 \div 2\frac{2}{5} =$$

$$10 \div \frac{12}{5} = \boxed{\frac{25}{6}}$$

$$\frac{10}{1} \cdot \frac{5}{12} = \frac{50}{12}$$

$$20. \left(-2\frac{1}{6}\right) \div \left(-1\frac{4}{9}\right) =$$

$$-\frac{13}{6} \div \left(-\frac{13}{9}\right) = \boxed{\frac{3}{2}}$$

$$\left(-\frac{13}{6}\right) \cdot \left(-\frac{9}{13}\right) = \frac{117}{78}$$

Solve each of the following questions and be sure to show all work.

21. The length of a kangaroo's leap can be up to $6\frac{1}{2}$ times its height. If a kangaroo is $7\frac{1}{2}$ feet tall, how far can it jump?

$$6\frac{1}{2} \cdot 7\frac{1}{2} =$$

$$\frac{13}{2} \cdot \frac{15}{2} = \frac{195}{4} = \boxed{48\frac{3}{4} \text{ ft}}$$

In word probs, given info as mixed #, answer should be mixed too

22. Susan threw the javelin $76\frac{2}{3}$ meters for her first throw and $72\frac{3}{4}$ meters for her second throw. How much longer was her first throw than her second throw?

Subtraction!

$$76\frac{2}{3} - 72\frac{3}{4}$$

$$76\frac{8}{12} - 72\frac{9}{12}$$

$$75\frac{20}{12} - 72\frac{9}{12}$$

$$\boxed{3\frac{11}{12} \text{ meters more}}$$