

# St James Math Packet

Students entering 7<sup>th</sup> grade (Red Group)

Summer Skills Sharpener

In an effort to spend less time reviewing in the beginning of the school year, this Math packet must be completed during summer vacation. It will be collected during the first week of school, and will be counted as one test grade for the First Quarter.



Name: \_\_\_\_\_

Score: \_\_\_\_\_

### Evaluate the Expressions - Single Variable

Easy: S1

Evaluate each algebraic expression for the given value of the variable.

1)  $16 - x$  at  $x = 5$

2)  $3n$  at  $n = 11$

3)  $p^3$  at  $p = 2$

4)  $r + 4$  at  $r = 13$

5)  $\frac{m}{2} + 1$  at  $m = 6$

6)  $c - 9$  at  $c = 16$

7)  $b^2$  at  $b = 4$

8)  $\frac{y}{5}$  at  $y = 15$

9)  $21 - z$  at  $z = 10$

10)  $\frac{q}{3} + 4$  at  $q = 3$

Name: \_\_\_\_\_

Score: \_\_\_\_\_

## Translating Phrases - Linear Expression

ES1

Translate each verbal phrase into an algebraic expression:

- 1) The sum of  $x$  and 2 \_\_\_\_\_
- 2)  $t$  divided by 8 \_\_\_\_\_
- 3) The product of 9 and  $m$  \_\_\_\_\_
- 4) Subtract 5 from  $c$  \_\_\_\_\_
- 5) Combine  $y$  and 7 \_\_\_\_\_
- 6) Three-sevenths of  $h$  \_\_\_\_\_
- 7) 3 multiplied by  $d$  \_\_\_\_\_
- 8) One-quarter added to  $n$  \_\_\_\_\_
- 9)  $b$  decreased by 10 \_\_\_\_\_
- 10) One-half of  $k$  \_\_\_\_\_

# Solving Two-Step Equations

Multiplication & Division - Negative Coefficients

Name: \_\_\_\_\_ Date: \_\_\_\_\_



Solve the equations.

(1)  $-69 = 41 + 5x$

(2)  $4 + \frac{x}{10} = -4$

(3)  $-156 = -9x - 39$

(4)  $-155 = 13x - 64$

(5)  $69 = -36 - 5x$

(6)  $89 - 7x = -58$

(7)  $-16 = -2 + \frac{x}{2}$

(8)  $-97 = -21 + 4x$

(9)  $-3 = \frac{x}{5} + 1$

(10)  $-6 = \frac{x}{-14} - 1$

(11)  $-2 + \frac{x}{-5} = 4$

(12)  $-8 = \frac{x}{-6} - 1$

(13)  $-3 = 4 + \frac{x}{-5}$

(14)  $-70 - 14x = 98$

(15)  $80 = 12x - 112$

Name: \_\_\_\_\_

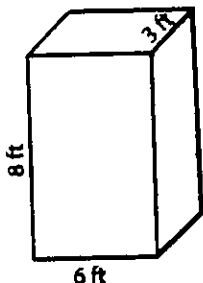
Score: \_\_\_\_\_

ES1

**Volume - Rectangular Prism**

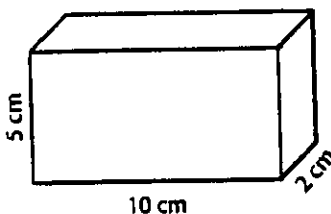
Find the volume of each rectangular prism.

1)



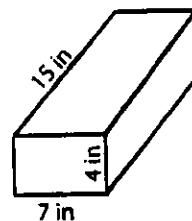
Volume = \_\_\_\_\_

2)



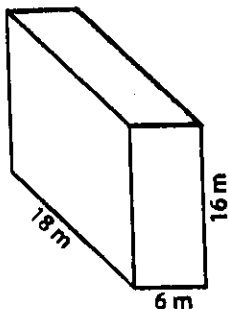
Volume = \_\_\_\_\_

3)



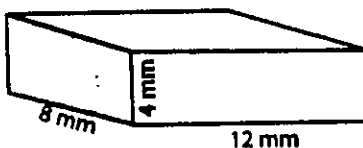
Volume = \_\_\_\_\_

4)



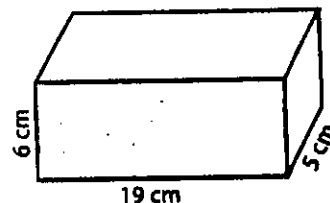
Volume = \_\_\_\_\_

5)



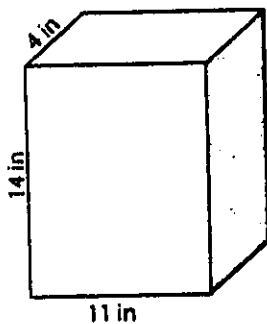
Volume = \_\_\_\_\_

6)



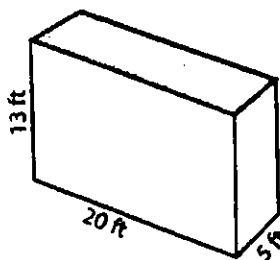
Volume = \_\_\_\_\_

7)



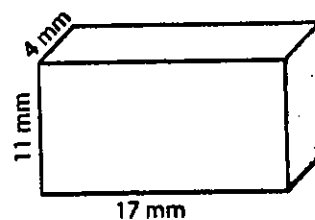
Volume = \_\_\_\_\_

8)



Volume = \_\_\_\_\_

9)



Volume = \_\_\_\_\_

10) A bath tub in the shape of a rectangular prism is 20 meter long, 10 meter wide and 5 meter deep. How much water can it hold?

Volume = \_\_\_\_\_

Name: \_\_\_\_\_

SoftSchools

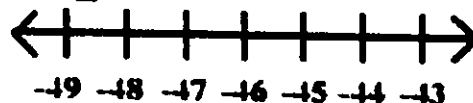
Date: \_\_\_\_\_

Solve each inequality and graph the solution

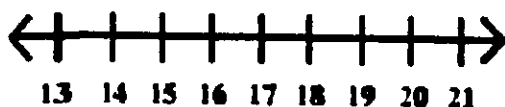
1)  $6n \geq 0$



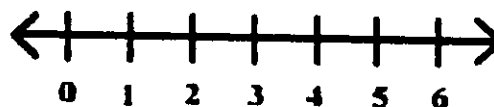
2)  $b - 7 \geq -7$



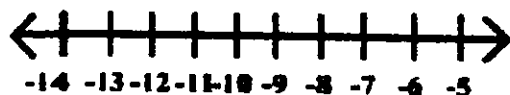
3)  $8b \leq 152$



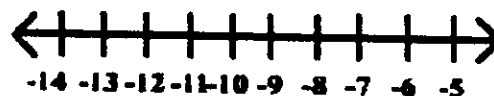
4)  $9y \leq 54$



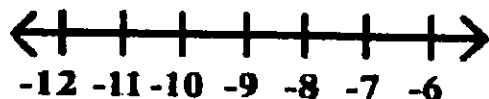
5)  $-19 \geq x - 7$



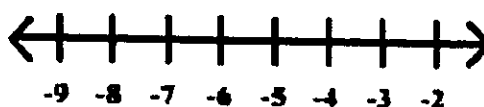
6)  $-11 \geq b - 5$



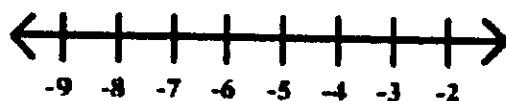
7)  $-5 \leq b + 2$



8)  $-7 \geq a - 3$



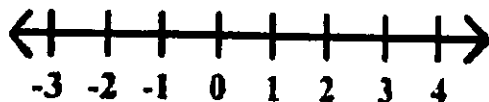
9)  $15 + y \leq 12$



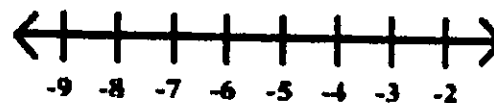
10)  $26 \leq b + 8$



11)  $-14 > -12 + y$



12)  $11 + s \leq 4$



## Multiplying and Dividing Fractions (F)

Find the value of each expression in lowest terms.

1.  $\frac{7}{6} \div \frac{3}{11}$

6.  $\frac{1}{3} \div \frac{1}{5}$

11.  $\frac{1}{2} \div \frac{18}{7}$

2.  $\frac{7}{2} \div \frac{11}{5}$

7.  $\frac{16}{7} \div \frac{1}{7}$

12.  $\frac{1}{4} \times \frac{17}{2}$

3.  $\frac{3}{5} \times \frac{3}{2}$

8.  $\frac{9}{2} \times \frac{3}{11}$

13.  $\frac{7}{6} \times \frac{17}{7}$

4.  $\frac{19}{6} \times \frac{5}{4}$

9.  $\frac{2}{5} \times \frac{22}{9}$

14.  $\frac{15}{4} \times \frac{3}{4}$

5.  $\frac{1}{10} \times \frac{23}{3}$

10.  $\frac{4}{7} \times \frac{13}{3}$

15.  $\frac{11}{6} \times \frac{20}{11}$





Solve each problem.

1)  $30 + 53.29 =$  \_\_\_\_\_

2)  $622.5 \div 0.75 =$  \_\_\_\_\_

3)  $7.8 \times 9.7 =$  \_\_\_\_\_

4)  $6.501 + 36.786 =$  \_\_\_\_\_

5)  $62.5 - 62.4 =$  \_\_\_\_\_

6)  $4.968 \div 0.27 =$  \_\_\_\_\_

7)  $6,137 \div 1.9 =$  \_\_\_\_\_

8)  $63 + 46.2 =$  \_\_\_\_\_

9)  $4.99 \times 5.95 =$  \_\_\_\_\_

10)  $5.266 \times 5.179 =$  \_\_\_\_\_

11)  $87.51 - 5.399 =$  \_\_\_\_\_

12)  $48.8 - 1.957 =$  \_\_\_\_\_

**Answers**

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_
- 6. \_\_\_\_\_
- 7. \_\_\_\_\_
- 8. \_\_\_\_\_
- 9. \_\_\_\_\_
- 10. \_\_\_\_\_
- 11. \_\_\_\_\_
- 12. \_\_\_\_\_



# Dividing With Decimal Quotients

Name: \_\_\_\_\_

Solve each problem. Round your answer to the nearest hundredth (if necessary).

1)

$$9 \overline{) 10}$$

2)

$$4 \overline{) 613}$$

3)

$$54 \overline{) 45}$$

## Answers

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

4)

$$8 \overline{) 78}$$

5)

$$32 \overline{) 697}$$

6)

$$3 \overline{) 140}$$



# Identifying Rational and Irrational Numbers

Name: \_\_\_\_\_

Determine if the number is rational (R) or irrational (I).

## Answers

- 1)  $61\pi$
- 2) 42
- 3)  $75.082\overline{106}$
- 4)  $\sqrt{101}$
- 5)  $65.4\overline{279}$
- 6)  $\frac{20}{6}$
- 7)  $\pi$
- 8)  $5.62\overline{13}$
- 9)  $\frac{98}{16}$
- 10) 39
- 11) 89.396668...
- 12)  $\sqrt{17}$
- 13) 67.714813...
- 14)  $\sqrt{64}$
- 15)  $\frac{1}{4}$
- 16)  $\sqrt{25}$
- 17)  $71.5\overline{186}$
- 18)  $\frac{7}{54}$
- 19) 20.455566...
- 20) 97.33997

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_
19. \_\_\_\_\_
20. \_\_\_\_\_

# Fractions/Decimals Worksheet

Write the following fractions as decimals.

1 a.  $\frac{18}{50} =$

1 b.  $\frac{69}{100} =$

2 a.  $\frac{1}{5} =$

2 b.  $\frac{4}{10} =$

3 a.  $\frac{57}{100} =$

3 b.  $\frac{1}{2} =$

4 a.  $\frac{1}{10} =$

4 b.  $\frac{5}{100} =$

5 a.  $\frac{96}{100} =$

5 b.  $\frac{8}{10} =$

6 a.  $\frac{1}{100} =$

6 b.  $\frac{23}{100} =$

7 a.  $\frac{99}{100} =$

7 b.  $\frac{6}{10} =$

8 a.  $\frac{6}{20} =$

8 b.  $\frac{11}{25} =$

9 a.  $\frac{51}{100} =$

9 b.  $\frac{58}{100} =$

NAME \_\_\_\_\_



## Solving One-Step Multiplication/ Division Equations

Solve each equation.

1.  $45 = \frac{n}{5}$

\_\_\_\_\_

2.  $2.4x = 1.8$

\_\_\_\_\_

3.  $\frac{1}{3}y = 14$

\_\_\_\_\_

4.  $\frac{18}{5} = \frac{4m}{3}$

\_\_\_\_\_

5.  $\frac{2}{3}n = -18$

\_\_\_\_\_

6.  $40p = 1,520$

\_\_\_\_\_

7.  $5q = -4\frac{2}{3}$

\_\_\_\_\_

8.  $7r = -\frac{7}{8}$

\_\_\_\_\_

9.  $2\frac{5}{7}t = 10$

\_\_\_\_\_

10.  $10x = 24$

\_\_\_\_\_

11.  $1\frac{1}{3}p = 18$

\_\_\_\_\_

12.  $63q = 1,071$

\_\_\_\_\_

**Mixed Practice** Solve each equation.

13.  $k + 7 = 34$

\_\_\_\_\_

14.  $\frac{1}{4} + g = \frac{5}{8}$

\_\_\_\_\_

15.  $x - 81 = 53$

\_\_\_\_\_

16.  $1\frac{1}{2} + t = 4$

\_\_\_\_\_

17.  $3\frac{1}{4}y = 2\frac{1}{2}$

\_\_\_\_\_

18.  $6 = 3\frac{1}{2} + b$

\_\_\_\_\_

NAME \_\_\_\_\_

SHARPEN  
YOUR  
SKILLS

## Adding and Subtracting Integers

Add or subtract.

1.  $-4 - (4)$  \_\_\_\_\_      2.  $-7 + 9$  \_\_\_\_\_      3.  $-9 - (-9)$  \_\_\_\_\_
4.  $-25 - (-5)$  \_\_\_\_\_      5.  $0 + (-8)$  \_\_\_\_\_      6.  $-8 - (-12)$  \_\_\_\_\_
7.  $-9 + 22$  \_\_\_\_\_      8.  $-17 - 20$  \_\_\_\_\_      9.  $15 - 42$  \_\_\_\_\_
10.  $-12 + (-2)$  \_\_\_\_\_      11.  $67 - (-66)$  \_\_\_\_\_      12.  $13 + (-7)$  \_\_\_\_\_
13.  $6 - 26$  \_\_\_\_\_      14.  $-22 - 15$  \_\_\_\_\_      15.  $-32 - (-36)$  \_\_\_\_\_
16.  $14 + (-20)$  \_\_\_\_\_      17.  $8 - (-7)$  \_\_\_\_\_      18.  $8 + (-3)$  \_\_\_\_\_
19.  $-9 + 9 =$  \_\_\_\_\_      20.  $37 - 22$  \_\_\_\_\_      21.  $-15 + 8$  \_\_\_\_\_
22.  $17 + (-7)$  \_\_\_\_\_      23.  $-12 + 8$  \_\_\_\_\_      24.  $-36 - (-9)$  \_\_\_\_\_
25.  $9 - (-4)$  \_\_\_\_\_      26.  $-9 + (-9)$  \_\_\_\_\_      27.  $16 + (-2)$  \_\_\_\_\_
28.  $24 - (-10)$  \_\_\_\_\_      29.  $-32 + 27$  \_\_\_\_\_      30.  $16 + (-32)$  \_\_\_\_\_
31.  $-10 + 28 + (-7)$  \_\_\_\_\_      32.  $-19 + 21 + 15 + (-5)$  \_\_\_\_\_
33.  $32 - 54 - (-2)$  \_\_\_\_\_      34.  $61 - (-50) + 22$  \_\_\_\_\_
35.  $-4 - 8 - (-12)$  \_\_\_\_\_      36.  $-38 - 21 - (-51)$  \_\_\_\_\_

Complete the tables.

	$a$	$9 + a$
37.	2	
38.	-2	
39.	-3	

	$b$	$12 - b$
40.		7
41.	0	
42.		-4

	$c$	$c + 5$
43.	-4	
44.		16
45.		-12

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2 a.  $\frac{1}{5} =$

2 b.  $\frac{4}{10} =$

3 a.  $\frac{57}{100} =$

3 b.  $\frac{1}{2} =$

4 a.  $\frac{1}{10} =$

4 b.  $\frac{5}{100} =$

5 a.  $\frac{96}{100} =$

5 b.  $\frac{8}{10} =$

6 a.  $\frac{1}{100} =$

6 b.  $\frac{23}{100} =$

7 a.  $\frac{99}{100} =$

7 b.  $\frac{6}{10} =$

8 a.  $\frac{6}{20} =$

8 b.  $\frac{11}{25} =$

9 a.  $\frac{51}{100} =$

9 b.  $\frac{58}{100} =$

