## Math Concepts Problem Set 21

Assigned Thursday 2/27, due Friday 3/6.
No Work Shown, No Credit Given

Name $\qquad$

## Period

1. Convert each mixed number to an improper fraction greater than one.
a) $2 \frac{5}{6}$
b) $1 \frac{7}{8}$
c) $5 \frac{13}{20}$
d) $3 \frac{1}{12}$
e) $10 \frac{14}{15}$
2. Simplify each fraction to a mixed number.
a) $\frac{17}{2}$
b) $\frac{15}{6}$
c) $\frac{42}{5}$
d) $\frac{15}{4}$
e) $\frac{901}{100}$
3. Complete each of following statements.
a) If one cat has 16 whiskers, then seven cats will have $\qquad$ whiskers.
b) If three slugs have six eye-stalks, then two slugs will have $\qquad$ eye-stalks.
c) If eight spiders have 64 legs, then 5 spiders will have $\qquad$ legs.
4. Jack and Jill were each placing points on the grid shown below. Jack's points are the full circles, and Jill's are the open circles.
a) List Jack's ordered pairs.
b) List Jill's ordered pairs.
c) Give the coordinates of one more point that Jill could draw so that she has four of her points in a row.

5. Use the number line to find your answers.
a) $-3+-4+2$
b) $-5+8+-8$
c) $6+-10+3$
d) $-5+-5+-5+-5$

6. Simplify each algebra expression.
a) $3+5 x+x+4$
b) $m+m+7+m+11$
c) $x+y+x+x+2 y-x$
7. Simplify with PEMDAS.
a) $40-4(10-4)$
b) $5+5 \cdot 3^{2}-2^{3}$
c) $20-20 \div 2+3$
d) $2(11-7)^{2}$
8. a) Find the probability of spinning an even number, as a percent.
b) Find $\mathrm{P}(7)$. Write your probability as a percent.
c) Find the probability of spinning a number less than 3 , as a percent.

9. a) $25 \frac{3}{5}+15 \frac{1}{4}$
b) $32 \frac{7}{8}-12 \frac{5}{6}$
c) $19 \frac{2}{3}+10 \frac{11}{12}$
10. Arrange each set from least to greatest.
a) $5,0,-4,1,-7$
b) $-1,-9,0,-12,-3$
c) $\frac{1}{5}, \frac{1}{3}, \frac{1}{4}$
11. Find the missing side lengths of each rectangle ( b and c are also squares).
a)

b)

c)

d)

12. Find the area of each composite rectangle.


7 ft

