

Name: _____ Algebra 10 Unit 7 Lesson 4

Factoring (Difference of 2 Perfect Squares – DOPS)

DO NOW ~ Wednesday 11/6

Factor the following polynomial using the GCF (Backwards Distribute).

$$-25x^3 - 20x^5 + 15x^4$$

$$5x^3(-5 - 4x^2 + 3x)$$



Classwork

Square Root: _____

$\sqrt{1} = 1$

$\sqrt{16} = 4$

$\sqrt{49} = 7$

$\sqrt{100} = 10$

$\sqrt{4} = 2$

$\sqrt{25} = 5$

$\sqrt{64} = 8$

$\sqrt{121} = 11$

$\sqrt{9} = 3$

$\sqrt{36} = 6$

$\sqrt{81} = 9$

$\sqrt{144} = 12$

Perfect Square: _____

$1^2 = 1$

$4^2 = 16$

$7^2 = 49$

$10^2 = 100$

$2^2 = 4$

$5^2 = 25$

$8^2 = 64$

$11^2 = 121$

$3^2 = 9$

$6^2 = 36$

$9^2 = 81$

$12^2 = 144$

Continue onto next page.

Factor (DOPS).

$$\sqrt{p^2 - 25}$$

$$(p+5)(p-5)$$

$$x^2 \sqrt{9}$$

$$(x+3)(x-3)$$

$$\sqrt{4n^2 - 1}$$

$$(2n+1)(2n-1)$$

$$4n^2 - \boxed{2n+2n} - 1$$

$$\sqrt{9x^2 - 16}$$

$$(3x+4)(3x-4)$$

$$\sqrt{4p^2 - 25}$$

$$(2p+5)(2p-5)$$

$$9k^2 \sqrt{25}$$

$$(3k+5)(3k-5)$$

DO NOW ~ Thursday 11/7

Factor (DOPS).

$$9n^2 - 64 \quad \sqrt{}$$
$$(3n+8)(3n-8)$$



Classwork

Factor (DOPS).

$$121m^2 - 16$$
$$(11m+4)(11m-4)$$

$$144r^2 - 25$$
$$(12r+5)(12r-5)$$

$$\sqrt{16x^2} - 9$$
$$(4x+3)(4x-3)$$

$$\sqrt{64x^2} \sqrt{1}$$
$$(8x+1)(8x-1)$$

DO NOW ~ Friday 11/8

Factor (DOPS).

$$121n^2 - 1$$
$$(11n + 1)(11n - 1)$$



Classwork

Factor (DOPS).

$$81b^2 - 64$$

$$(9b + 8)(9b - 8)$$

$$49v^2 - 144$$

$$(7v + 12)(7v - 12)$$

$$n^2 - 9$$

$$(n + 3)(n - 3)$$

$$18 + 24n + 12n^2$$

$$6(3 + 4n + 2n^2)$$

To earn your full participation point for the Do Now be sure to have completed all of the following by the time is up:

- 1) Be in your seat
- 2) Take out your calculator or grab one
- 3) Have last night's homework out
- 4) Complete the do now



DO NOW ~ Tuesday 11/12

Factor (DOPS).

$$a^2 - 144$$
$$(a+12)(a-12)$$



Classwork

Factor (DOPS).

$$49x^2 - 64$$
$$(7x+8)(7x-8)$$

$$25n^2 - 1$$
$$(5n+1)(5n-1)$$

$$4x^2 - 49$$
$$(2x+7)(2x-7)$$

$$4b^4 + 16b^3 - 12b^2$$
$$4b^2(1b^2 + 4b - 3)$$

Mrs. Ferreri's Station ~ DOPS Factoring**Factor (DOPS).**

1) $25r^2 - 16$

2) $144x^2 - 49$

3) $25b^2 - 36$

4) $16n^2 - 81$

5) $121v^2 - 4$

6) $9n^2 - 1$

7) $9a^2 - 121$

8) $121x^2 - 16$

9) $81k^2 - 196$

10) $121x^2 - 81$

11) $49x^2 - 144$

12) $64m^2 - 25$

13) $64n^2 - 81$

14) $x^2 - 16$

15) $9p^2 - 4$

16) $49n^2 - 1$

Continue onto the next page.

Factor (DOPS).

17) $49b^2 - 121$

18) $169x^2 - 100$

19) $25a^2 - 169$

20) $144v^2 - 25$

21) $x^2 - 9$

22) $16x^2 - 1$

23) $121a^2 - 36$

24) $100k^2 - 121$

25) $9p^2 - 169$

26) $49x^2 - 100$

27) $4n^2 - 49$

28) $81m^2 - 64$

29) $r^2 - 25$

30) $64n^2 - 9$

31) $v^2 - 49$

32) $169b^2 - 16$

Computer Station ~ Delta Math

Complete the "Factoring using the GCF" assignment.

Show your work here:

Mrs. Kennedy's Station ~ Factoring DOPS**Factor.**

1) $n^2 - 9$

2) $25n^2 - 9$

3) $16 - v^2$

4) $16k^2 - 9$

5) $4b^2 - 9$

6) $9 - 25x^2$

7) $b^2 - 1$

8) $25x^2 - 1$

9) $4v^2 - 1$

10) $1 - 16r^2$

11) $9b^2 - 16$

12) $25r^2 - 16$

13) $9x^2 - 4$

14) $25k^2 - 4$

15) $9v^2 - 1$

16) $4n^2 - 25$

Continue onto next page.

Factor (DOPS).

1) $4n^2 - 9$

2) $25x^2 - 1$

3) $4a^2 - 1$

4) $x^2 - 4$

5) $16k^2 - 25$

6) $4n^2 - 25$

7) $p^2 - 16$

8) $9x^2 - 16$

9) $n^2 - 1$

10) $9r^2 - 25$

11) $9b^2 - 4$

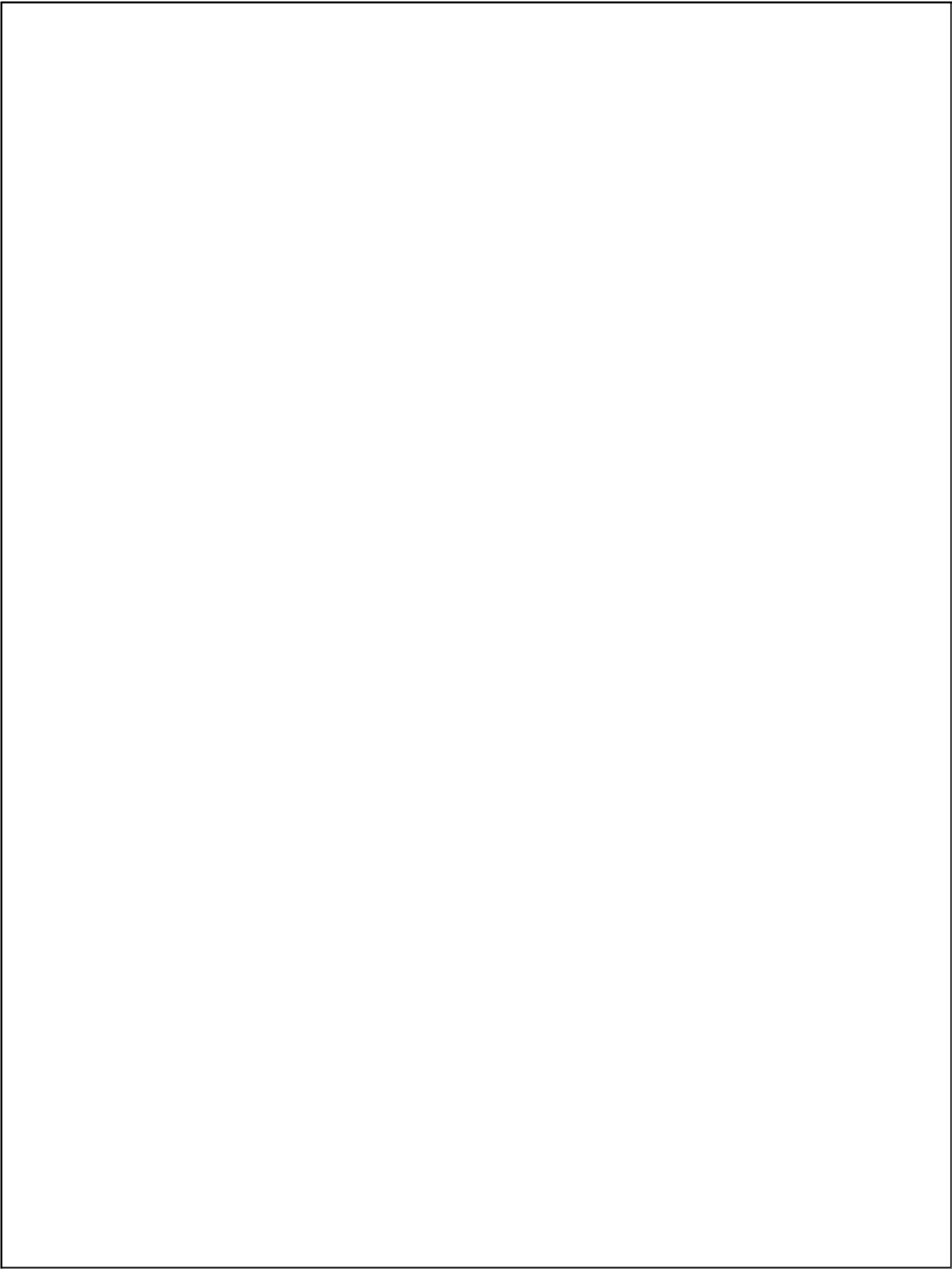
12) $25x^2 - 9$

13) $16n^2 - 9$

14) $9x^2 - 1$

15) $16p^2 - 1$

16) $25x^2 - 4$



Independent Station ~ Color by Number

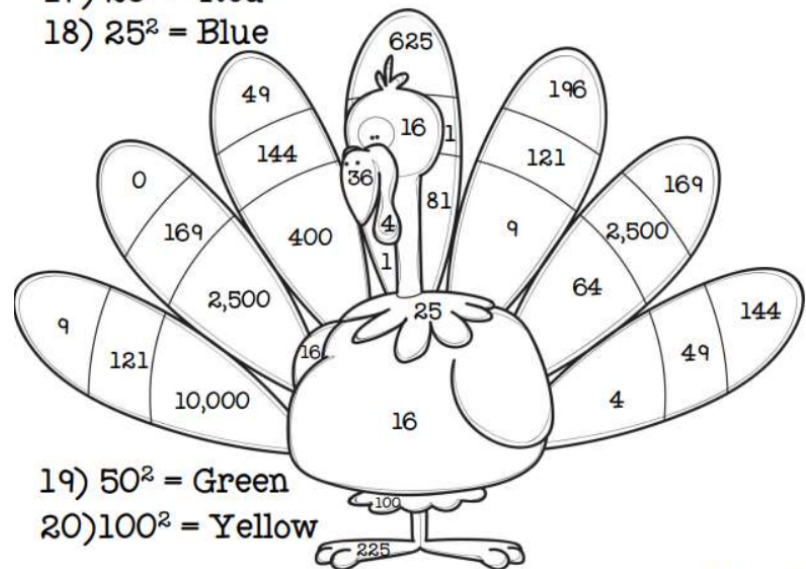
Find the perfect square for each problem, once you solved the problem find the answer on the turkey and color it.

- 1) 0^2 = Green
- 2) 1^2 = Blue
- 3) 2^2 = Red
- 4) 3^2 = Yellow
- 5) 4^2 = Brown
- 6) 5^2 = White
- 7) 6^2 = Orange
- 8) 7^2 = Red
- 9) 8^2 = Green
- 10) 9^2 = Blue
- 11) 10^2 = White
- 12) 11^2 = Yellow
- 13) 12^2 = Red
- 14) 13^2 = Green
- 15) 14^2 = Yellow

16) 15^2 = Orange

17) 20^2 = Red

18) 25^2 = Blue

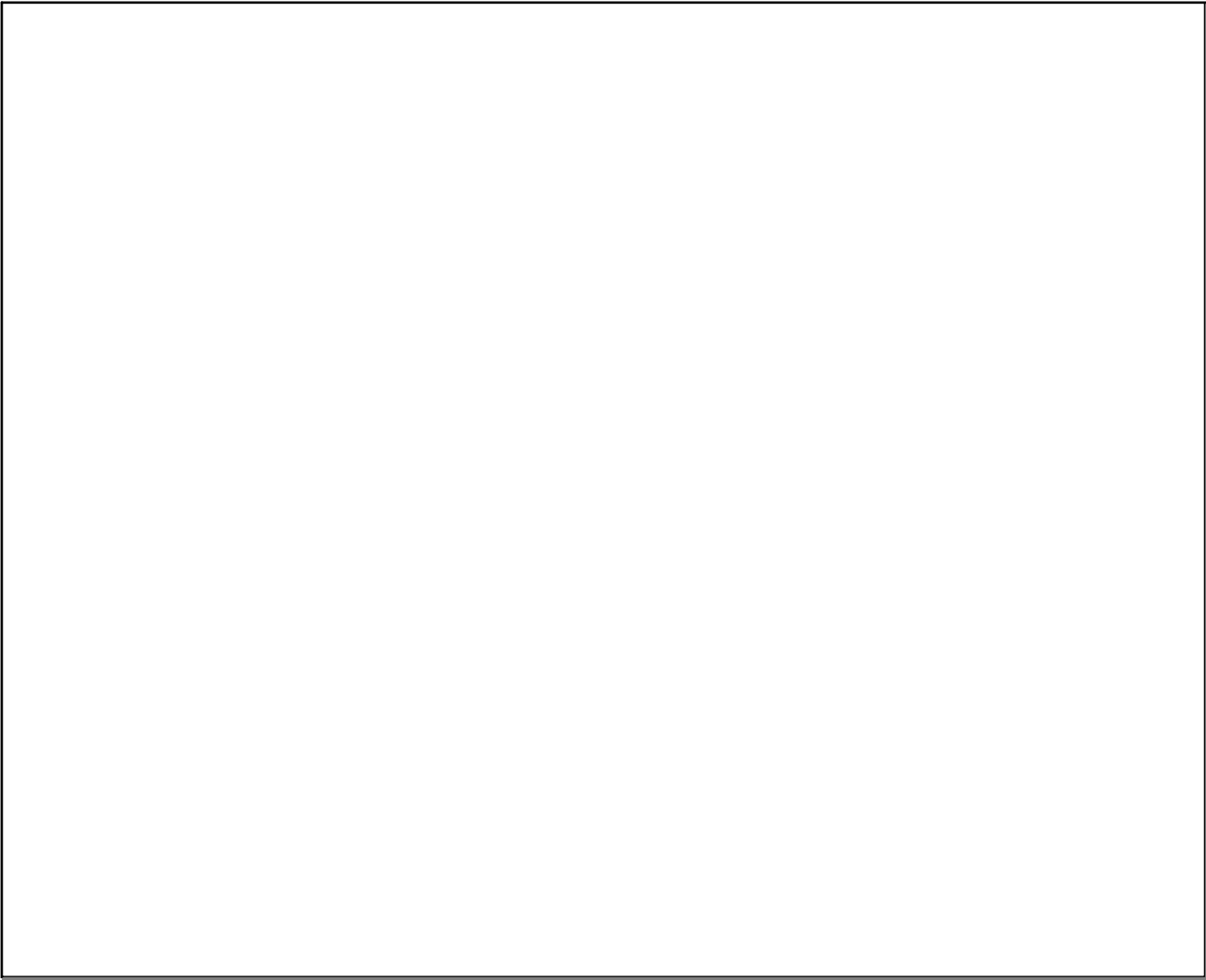


19) 50^2 = Green

20) 100^2 = Yellow

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Factor using the GCF.

1) $72 + 8x^7 + 16x$

2) $7x^5 + 35x^2 + 7$

3) $-7k^{10} + 6k^7 - 2k^5$

4) $-40a^5 + 90a^3 + 20a$

5) $24p + 18p^2 + 48p^3$

6) $12x^3 + 10x + 6$

Homework ~ Wednesday 11/6**Evaluate the following:**

$$\sqrt{144} = \underline{\hspace{2cm}}$$

$$12^2 = \underline{\hspace{2cm}}$$

Factor.

$$b^2 - 16$$

$$9v^2 - 25$$

Homework ~ Thursday 11/7**Factor (DOPS).**

$$x^2 - 16$$

$$x^2 - 100$$

$$x^2 - 1$$

$$x^2 - 25$$

Homework ~ Tuesday 11/12

Factor (DOPS).

$$4 - x^2$$

$$9 - x^2$$

$$4x^2 - 1$$

$$81 - 4t^2$$